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COLLEGE
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POMONA COLLEGE BULLETIN

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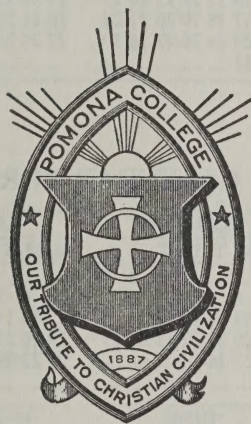
Vol. LVII

MAY, 1960

No. 9

Annual Catalog

1960-1961



Pomona College

CLAREMONT, CALIFORNIA

CALENDAR FOR 1960

JANUARY							FEBRUARY							MARCH							APRIL														
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CALENDAR FOR 1961

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COLLEGE CALENDAR FOR 1960 - 1961

Claremont Summer Session, 1960

June 27 to August 5

June 27 to August 19

First Semester

SEPTEMBER 16	Residence halls open for new students only. First meal served, dinner at 6 p.m.
SEPTEMBER 16-19	Program for new students.
SEPTEMBER 17, SATURDAY	Faculty Meeting, 10:00 a.m.
SEPTEMBER 19, MONDAY	Conference Day and Registration for new students.
SEPTEMBER 20 AND 21, TUESDAY AND WEDNESDAY	Residence halls open for returning students. Only those returning students who have been officially requested to arrive in Claremont earlier may be admitted to campus residence before this date. First meal served to returning students, breakfast, Tuesday. Registration for returning students.
SEPTEMBER 22, THURSDAY	First semester classes begin, 8 a.m. Opening Convocation, 11 a.m.
OCTOBER 6, THURSDAY	Last day for entering classes.
OCTOBER 11, TUESDAY	Founders Day, Flame Ceremony, 11 a.m.
NOVEMBER 15, TUESDAY	Low Grade Reports due.
NOVEMBER 21, MONDAY	Final day for withdrawal from classes without penalty.
NOVEMBER 23, WEDNESDAY	Thanksgiving recess begins, 9:30 p.m.
NOVEMBER 28, MONDAY	Thanksgiving recess ends, 8 a.m.
DECEMBER 17, SATURDAY	Christmas vacation begins, noon.
JANUARY 4, WEDNESDAY	Christmas vacation ends, 8 a.m. Reading period begins.
JANUARY 19, THURSDAY	Last day of classes.
JANUARY 23, MONDAY	Final Examinations begin.
FEBRUARY 1, WEDNESDAY	Final Examinations end.
FEBRUARY 4, SATURDAY	First Semester ends.

COLLEGE CALENDAR FOR 1960 - 1961

Second Semester

FEBRUARY 6, MONDAY	Opening day for classes at Scripps College. Pomona students enrolled in Scripps courses are expected to attend.
FEBRUARY 7, TUESDAY	Registration for all students.
FEBRUARY 8, WEDNESDAY	Second semester classes begin, 8 a.m. Continue registration for all students.
FEBRUARY 9, THURSDAY	Opening Convocation, second semester, 11 a.m.
FEBRUARY 22, WEDNESDAY	Last day for entering classes.
MARCH 11, SATURDAY	Matriculation Day.
MARCH 29, WEDNESDAY	Low Grade Reports due.
MARCH 30, THURSDAY	Spring vacation begins, 9:30 p.m.
APRIL 10, MONDAY	Spring vacation ends, 8 a.m.
APRIL 12, WEDNESDAY	Final day for withdrawal from classes without penalty.
MAY 8, MONDAY	Reading period begins.
MAY 20, SATURDAY	Last day of classes for graduating seniors.
MAY 27, SATURDAY	Last day of classes.
MAY 28, SUNDAY	Memorial Convocation, 5 p.m.
MAY 29, MONDAY	Final Examinations begin.
JUNE 4, SUNDAY	Associated Colleges Baccalaureate.
JUNE 7, WEDNESDAY	Final Examinations end.
JUNE 10, SATURDAY	Alumni Day.
JUNE 11, SUNDAY	Commencement.

* * * * *

SEPTEMBER 22-25	Program for new students.
SEPTEMBER 25	Registration begins.

BOARD OF TRUSTEES

OFFICERS

Rudolph J. Wig, *President*
Paul Fussell, *Vice-President*
Fred W. Smith, *Vice-President*

TERM OF OFFICE EXPIRES JUNE, 1960

Terrell C. Drinkwater, <i>Los Angeles</i>	Herbert S. Rempel, <i>Pasadena</i>
A. J. Gock, <i>Los Angeles</i>	Frank R. Seaver, <i>Los Angeles</i>
Leonard A. Shelton, <i>Claremont</i>	George W. Beadle, <i>Pasadena</i>

TERM OF OFFICE EXPIRES JUNE, 1961

James T. Wood, Jr., <i>Pasadena</i>	Charles E. Donnelly, <i>Los Angeles</i>
Arthur J. McFadden, <i>Santa Ana</i>	Yale B. Griffith, <i>Santa Barbara</i>
E. Wilson Lyon, <i>Claremont</i>	

TERM OF OFFICE EXPIRES JUNE, 1962

Lawrence T. Cooper, <i>Altadena</i>	Rollin Eckis, <i>Bradbury</i>
William W. Clary, <i>Pasadena</i>	Robert V. Edwards, <i>San Marino</i>
Charles Detoy, <i>Pasadena</i>	Rudolph J. Wig, <i>San Marino</i>

TERM OF OFFICE EXPIRES JUNE, 1963

Samuel R. Raymond, <i>Los Angeles</i>	Mrs. Victor Montgomery, <i>Beverly Hills</i>
Cyril Chappellet, <i>Los Angeles</i>	Morris B. Pendleton, <i>San Marino</i>
S. Rodman Irvine, <i>Beverly Hills</i>	

TERM OF OFFICE EXPIRES JUNE, 1964

Fred W. Smith, <i>Ojai</i>	Roy E. Thomas, <i>Los Angeles</i>
Robert B. Coons, <i>Los Angeles</i>	Paul Fussell, <i>Pasadena</i>
John W. Dodds, <i>Palo Alto</i>	Ranney C. Draper, <i>Monrovia</i>

HONORARY MEMBERS

Paul S. Armstrong, <i>Los Angeles</i>	Ernest E. Jones, <i>Claremont</i>
Frederick S. Bale, <i>Pasadena</i>	George R. Martin, <i>Los Angeles</i>
George W. Bryant, <i>San Marino</i>	William S. Mason, <i>Rancho Santa Fe</i>
George L. Eastman, <i>Hollywood</i>	Seeley G. Mudd, <i>San Marino</i>
Mary Clark Eversole, <i>La Canada</i>	Mary McLean Olney, <i>Berkeley</i>
William B. Himrod, <i>Los Angeles</i>	George S. Sumner, <i>Claremont</i>
Carl I. Wheat, <i>Menlo Park</i>	

EX-OFFICIO MEMBERS

President of Claremont College
President of the Alumni Association
President of the Dads Club
President of the Women's Campus Club
President of the Pomona College Associates

FORMER PRESIDENTS OF THE COLLEGE

Cyrus G. Baldwin, 1890 - 1897	Franklin L. Ferguson, 1897 - 1901
George A. Gates, 1901 - 1910	James A. Blaisdell, 1910 - 1928
Charles K. Edmunds, 1928 - 1941	

GENERAL ADMINISTRATION

1960-61

ELIJAH WILSON LYON, <i>President</i> B.A., University of Mississippi; B.A. and B. Litt., University of Oxford; Ph.D. University of Chicago; LL.D., Colgate University; D.Litt., Occidental College; L.H.D., Trinity College; LL.D., University of California.	<i>Sumner Hall</i>
ALLEN F. HAWLEY, <i>Vice-President</i> B.A., Pomona College; Graduate Student, Harvard University.	<i>Sumner Hall</i>
PAUL H. BURTON, <i>Controller</i> B.A., Western Reserve University.	<i>Pendleton Bldg.</i>
WILLIAM V. SHANNON, <i>Treasurer</i> B.S., Virginia Military Institute.	<i>Pendleton Bldg.</i>
ORLANDO R. DAVIDSON, <i>Director of Development</i> B.A., Reed College.	<i>Sumner Hall</i>
WILLIAM B. DUNSETH, <i>Assistant Director of Development</i> B.A., Park College; M.B.A., University of Minnesota.	<i>Sumner Hall</i>
CARLETON G. PONSFORD, <i>Assistant Vice-President</i> B.A., Pasadena College.	<i>Sumner Hall</i>
WILLIAM B. HIMROD, <i>Assistant to the President</i> B.A., Pomona College. Graduate Student, University of Southern California.	<i>Sumner Hall</i>
JOHN F. MOULDS, <i>Assistant to the President</i> Ph.B., University of Chicago.	<i>Sumner Hall</i>
CHARLES M. CRAWFORD, JR., <i>Assistant Treasurer</i>	<i>Pendleton Bldg.</i>
JOHN M. HARTKE, <i>Assistant Treasurer</i>	<i>Pendleton Bldg.</i>
FRANK H. TAYLOR, <i>Assistant Controller</i> B.S., University of Southern California	<i>Pendleton Bldg.</i>
RAYMOND F. FAY, <i>Bursar</i>	<i>Pendleton Bldg.</i>
MORTON C. JOHNSON, <i>Director of Alumni Relations</i> B.A., Pomona College.	<i>Sumner Hall</i>
JOSEPH R. HENRY, <i>Assistant Director of Alumni Relations</i> B.A., Pomona College.	<i>Sumner Hall</i>
CHARLES C. ELWELL, <i>Director of the News Bureau</i> B.A., Pomona College.	<i>Sumner Hall</i>
AGNES M. JOHNSON, <i>Executive Secretary to the President</i>	<i>Sumner Hall</i>
DOROTHY G. METZGER, <i>Director of Residence Halls</i> B.S., Iowa State College.	<i>Mudd Hall</i>
LUCILLE GRAMSE MCCARTHY, <i>Director of Dining Halls</i> B.S., M.S., Kansas State College of Applied Sciences.	<i>Frery Hall</i>
GEORGE W. CONN, <i>Campus Engineer</i> B.S., Bradley University.	<i>303 E. First St.</i>

The Faculty

Date denotes beginning of original term of service

ADMINISTRATIVE OFFICERS

- ELIJAH WILSON LYON 345 N. College Ave.
President, 1941.
B.A., University of Mississippi; B.A., and B.Litt., University of Oxford; Ph.D., University of Chicago; LL.D., Colgate University; Litt.D., Occidental College; L.H.D., Trinity College; LL.D., University of California.
- ERNEST ALBERT STRATHMANN 160 W. Eleventh St.
Dean of the Faculty, 1959; Professor of English on the Phebe Estelle Spalding Foundation, 1932.
B.A., M.A., Ph.D., Johns Hopkins University.
- J. EDWARD SANDERS 310 Radcliffe Drive
Dean of Students and Dean of Admissions, 1942.
B.A., Hendrix College; M.A., Ph.D., Columbia University.
- SHELTON L. BEATTY 156 E. Seventh St.
Dean of Men, 1949.
B.A., University of Tennessee; M.A., Cornell University; Ph.D., Stanford University
- JEAN B. WALTON 1370 Indian Hill Blvd.
Dean of Women on the Martha N. Hathaway Foundation, 1949.
B.A., Swarthmore College; M.A., Brown University; Ph.D., University of Pennsylvania.
- WILLIAM L. WHEATON 328 Oakdale Dr.
Associate Dean of Admissions, 1949.
B.A., Pomona College; M.A., New York University.
- HERBERT B. SMITH 777 W. Ninth St.
Assistant Dean of Admissions; Assistant Professor of History, 1952.
B.A., M.A., University of Iowa; Ph.D., University of California.
- MASAGO ARMSTRONG³ 4003 N. Garey Ave., La Verne
Registrar, 1955.
B.A., M.A., Stanford University.
- DAVID W. DAVIES 524 W. Tenth St.
Librarian, 1947.
B.A., University of California at Los Angeles; M.A., University of California; Ph.D., University of Chicago.
- JULIAN G. MICHEL 220 W. Twelfth St.
Associate Librarian, 1957.
B.A., Loyola University, New Orleans; M.A., Ph.D., Tulane University; Docteur de l'Université, University of Paris; B.L.S., University of California, Berkeley.
- GILBERT S. COLTRIN 333 Radcliffe Dr.
Physician of the Associated Colleges, 1940.
B.A., Pomona College; M.D., University of Rochester. Intern, Resident in Medicine, University of California Hospital; Fellow in Urology, Presbyterian Hospital, New York City; Exchange Fellow in Physiology, University of Kiel, Germany.
- EDGAR C. RECKARD, JR. 645 N. College Ave.
Chaplain of the Associated Colleges, 1958.
B.A., Yale University; B.D., Yale Divinity School; graduate study, University of Edinburgh.

- INA T. NIDER Harwood Court
Social Director, Women's Campus, 1948.
 B.A., Fresno State College; M.A., Columbia University.
- JOHN H. LETARTE Clark Hall
Social Director, Men's Campus, and Assistant in Admissions, 1959
 B.A., University of Rochester; M.A., Columbia University.

EMERITI

- WALTER ALFRED ALLEN 175 E. Twelfth St.
Emeritus Professor of Musical Theory and Appreciation, 1912.
 B.A., Beloit College; B.Mus., Yale University. Associate, American Guild of Organists.
- RAY ERWIN BABER 999 N. College Ave.
Emeritus Professor of Sociology, 1939.
 B.A., Campbell College; M.A., Ph.D., University of Wisconsin.
- GRACE ELLA BERRY 353 W. Eleventh St.
Emeritus Dean of Women and Associate Professor of Mathematics, 1909.
 B.S., M.A., Mount Holyoke College.
- JAMES WHITE CROWELL 450 University Circle
Emeritus Professor of Romance Languages, 1929.
 B.S., M.A., Haverford College; Ph.D., Cornell University.
- HAROLD DAVIS 612 W. Tenth St.
Emeritus Professor of English, 1927.
 B.A., Stanford University; B.A., and B. Litt., University of Oxford.
- ROBERT SIDNEY ELLIS 629 Marylind Ave.
Emeritus Professor of Psychology, 1931.
 B.A., University of Arkansas; Ph.D., Clark University.
- BERNARD CAPEN EWER 120 E. Eleventh St.
Emeritus Professor of Psychology, 1916.
 B.A., M.A., Brown University; Ph.D., Harvard University.
- CHARLES TABOR FITTS 445 Harrison Ave.
Emeritus Professor of Education, 1919.
 B.A., Amherst College; M.A., University of California. Graduate study, Harvard University.
- COLVIN HEATH 750 Indian Hill Blvd.
Emeritus Associate Professor of Physical Education for Men, 1922.
 B.A., Pomona College; M.A., Stanford University.
- HUBERT HERRING 765 Indian Hill Blvd.
Emeritus Professor of Latin American Civilization, 1945.
 B.A., Oberlin College; M.A., Columbia University; Graduate, Union Theological Seminary; LL.D., Claremont College.
- WILLIAM ATWOOD HILTON 1293 Dartmouth Ave.
Emeritus Professor of Zoology, 1905.
 B.S., Ph.D., Cornell University.
- FRANCIS RAYMOND IREDELL
Emeritus Dean of the Faculty, and Professor of Philosophy, 1925.
 B.A., Pomona College; M.A., Ph.D., Harvard University.

- ERNEST E. JONES 905 College Ave.
Treasurer Emeritus, 1909.
 B.A., Pomona College.
- ELLIOTT CURTIS LINCOLN 472 W. Tenth St.
Emeritus Professor of English, 1924.
 B.A., Colby College; M.A., State College of Washington and Harvard University.
- BRUCE McCULLEY 335 Harvard Ave.
Emeritus Professor of English Literature, 1921.
 B.A., Hiram College; M.A., University of Chicago; Ph.D., Harvard University.
- EUGENE WHITE NIXON 1351 Tulane Rd.
Emeritus Professor of Physical Education for Men, 1916.
 B.A., Monmouth College; M.A., Columbia University. Graduate study, Illinois and California Universities.
- GEORGE STEDMAN SUMNER 245 N. College Ave.
Emeritus Professor of Economics and Sociology, 1897.
Controller, 1922-1941.
 B.A., Pomona College; B.A., Ph.D., Yale University.
- EMILIE ELIZABETH WAGNER 783 W. Tenth St.
Emeritus Associate Professor of German, 1928.
 B.A., Smith College; M.A., Pennsylvania State College. Doctorate de l'Université mention Lettres, Toulouse.
- WALTER TICKNOR WHITNEY 710 W. Ninth St.
Emeritus Professor of Astronomy, 1929.
 B.S., M.S., Pomona College; Ph.D., University of Chicago.
- ALFRED OSWALD WOODFORD 760 W. Ninth St.
Emeritus Professor of Geology, 1915.
 B.A., Pomona College; Ph.D., University of California.

PROFESSORS

- YOST U. AMREIN 456 Harrison Ave.
Professor of Zoology, 1951.
 B.A., M.A., Ph.D., University of California at Los Angeles.
- CARL BAUMANN² 567 W. Eighth St.
Professor of German, 1931.
 Ph.D., University of Basel.
- GRAHAM B. BELL 1482 Wells St.
Professor of Psychology, 1956.
 B.A., Wesleyan University; M.A., Ph.D., Northwestern University.
- LYMAN BENSON 1430 Via Zurita
Professor of Botany on the Henry Kirke White Bent Foundation, 1944.
 B.A., M.A., Ph.D., Stanford University.
- FLOYD A. BOND³
Professor of Economics on the Stedman-Sumner Foundation, 1948.
 B.A., M.A., Ph.D., University of Michigan.
- FREDERICK BRACHER 230 W. Seventh St.
Professor of English, 1944.
 B.S., Oregon State College; M.A., Ph.D., University of California.

The Faculty

II

- CH'EN SHOU-YI 769 W. Ninth St.
Professor of Chinese Culture, 1941.
 B.A., Lingnan University; Ph.D., University of Chicago; Fellow of the Academia Sinica.
- KENNETH G. FISKE 585 W. Twelfth St.
Professor of Music, 1936.
 B. Mus., M.Mus., American Conservatory of Music. Pupil of Leon Sametini, Jacques Gordon, Otokar Sevcik.
- CHARLES A. FOWLER, JR.³ 366 E. Blaisdell St.
Professor of Physics on the Seeley W. Mudd Foundation, 1947.
 B.A., M.S., University of Utah; Ph.D., University of California.
- EDWARD MONTGOMERY FRYER 440 W. Eleventh St.
Professor of Physics, 1946.
 B.A., Pomona College; Engineer (Mech.), Ph.D., Stanford University.
- JOHN HOWES GLEASON 512 Baughman Ave.
Professor of History on the Warren Finney Day Memorial Foundation, 1939.
 B.A., Ph.D., Harvard University; B.Litt., University of Oxford.
- HUGH J. HAMILTON² 468 Grinnell Dr.
Professor of Mathematics, 1936.
 B.A., University of California at Los Angeles; M.A., Ph.D., Brown University.
- CORWIN HERMAN HANSCH 4070 Olive Knoll Place
Professor of Chemistry, 1946.
 B.S., University of Illinois; Ph.D., New York University.
- BURTON HENKE 121 Brown Drive
Professor of Physics, 1948.
 B.A., Miami University; M.A., Ph.D., California Institute of Technology.
- CHARLES SHIVELEY HOLMES 1010 Berkeley Ave.
Professor of English, 1941.
 B.A., Oberlin College; Ph.D., Princeton University.
- CHESTER GEORGE JAEGER 4456 Oak Lane
Professor of Mathematics on the Joseph N. Fiske Foundation, 1931.
 B.A., B.S., M.A., Ph.D., University of Missouri.
- SEARS R. JAYNE 3560 Padua Ave.
Professor of English, 1960.
 B.A., M.A., University of Missouri; Ph.D., Yale University
- RICHARD I. JONES
Professor of Military Science and Tactics, 1960.
 B.S., University of Washington; Command and General Staff School; The Armored School Associate Advanced Course; Colonel, Infantry, U. S. Army.
- WILLIAM THOMAS JONES 4201 Via Padova
Professor of Philosophy on the Robert C. Denison Foundation, 1938.
 B.A., Swarthmore College; B.Litt., University of Oxford; Ph.D., Princeton University.
- JOHN HASKELL KEMBLE 452 W. Sixth St.
Professor of History, 1936.
 B.A., Stanford University; M.A., Ph.D., University of California.
- ROBERT F. LEGGEWIE 240 Annapolis Dr.
Professor of Romance Languages, 1951.
 B.S., Loyola University; M.A., University of Southern California; A.M., Ph.D., Harvard University.

The Faculty

- DONALD B. McINTYRE** 625 W. Twelfth St.
Professor of Geology, 1954.
 B.Sc., Ph.D., D.Sc., University of Edinburgh.
- EARL JAY MERRITT** 641 Harvard Ave.
Professor of Physical Education for Men, 1925.
 B.A., Pomona College; M.A., Claremont Graduate School.
- HENRY CORD MEYER³** 470 Harrison Ave.
Professor of History, 1946.
 B.A., University of Colorado; M.A., University of Iowa; Ph.D., Yale University.
- FREDERICK LUDWIG MULHAUSER, JR.** 424 W. Eleventh St.
Professor of English, 1941.
 B.A., College of Wooster; M.A., Ph.D., Yale University.
- EDWIN ALLEN PHILLIPS** 1201 N. College Ave.
Professor of Botany, 1948.
 B.A., Colgate University; M.A., Ph.D., University of Michigan.
- WILLIAM F. RUSSELL** 382 E. Blaisdell St.
Professor of Music on the David J. Baldwin Foundation, 1951.
 B.A., Columbia University; M.A., Harvard University.
- DWIGHT LEONARD RYERSON³** 107 E. San Jose
Professor of Zoology, 1946.
 B.A., M.S., University of Arizona; Ph.D., University of California at Los Angeles.
- ALVIN HEWITT SCAFF³** 330 Radcliffe Dr.
Professor of Sociology, 1947.
 B.A., University of Texas; B.D., Chicago Theological Seminary; M.A., Ph.D., University of Texas.
- R. NELSON SMITH** 115 Brown Dr.
Professor of Chemistry on the Carnegie Foundation, 1945.
 B.A., Pomona College; M.A., Ph.D., Stanford University.
- ERNEST ALBERT STRATHMANN** 160 W. Eleventh St.
Professor of English on the Phebe Estelle Spalding Foundation, 1932; Dean of the Faculty, 1959.
 B.A., M.A., Ph.D., Johns Hopkins University.
- ROBERT LOBINGIER STREHLE** 1019 Dartmouth Ave.
Professor of Physical Education for Men, 1923.
 B.A., Pomona College; M.A., Claremont Graduate School; Graduate study, University of Southern California, University of California, Stanford University.
- JOHN ALBERT VIEG** 910 Oxford Ave.
Professor of Government, 1945.
 B.A., St. Olaf College; M.A., University of Iowa; Ph.D., University of Chicago.
- EDWARD WEISMILLER** 510 W. Tenth St.
Professor of English, 1949.
 B.A., D.Litt., Cornell College; M.A., Harvard University; D. Phil., University of Oxford.

ASSOCIATE PROFESSORS

- C. FREEMAN ALLEN³** 394 E. Blaisdell Dr.
Associate Professor of Chemistry, 1954.
 B.S., University of California; Ph.D., University of Wisconsin.

- VIRGINIA PRINCEHOUSE ALLEN 175 E. Twelfth St.
Associate Professor of Dramatics, 1930.
 B.A., Pomona College; Graduate study, Department of Drama, Yale University; M.A., Claremont Graduate School.
- WILLIAM G. BLANCHARD 1495 Via Zurita
Associate Professor of Music and College Organist, 1936.
 B.Mus., DePauw University; M.Mus., University of Michigan. Further study with Carl Weinrich and Hugh Porter in organ and with Seth Bingham in composition.
- HARRY JOSEPH CARROLL, JR. 1476 Indian Hill Blvd.
Associate Professor of Classics on the Edwin Clarence Norton Foundation, 1948.
 B.A., University of Akron; M.A., Ph.D., Harvard University.
- ELIZABETH CAWTHORNE 758 Baylor St.
Associate Professor of Physical Education for Women, 1935.
 B.A., M.A., University of California.
- LORNE D. COOK³ 873 W. Harrison Ave.
Associate Professor of Economics, 1954.
 B.A., M.A., Ph.D., University of Michigan.
- KENNETH L. COOKE 654 Northwestern Dr.
Associate Professor of Mathematics, 1957.
 B.A., Pomona College; M.A., Ph.D., Stanford University.
- MARGARET GAY DAVIES 395 S. Bonnie Ave., Pasadena
Associate Professor of History, 1952.
 B.A., M.A., Ph.D., Radcliffe College.
- DARYL DAYTON³ 561 W. Ninth St.
Associate Professor of Music, 1938.
 B.Mus., Oberlin College; Graduate study in Berlin and New York with Artur Schnabel, Leonard Shure, Dalies Frantz, and Guy Maier.
- WILLIAM L. FAUST 1100 Harvard Ave.
Associate Professor of Psychology, 1953.
 B.A., M.A., Ph.D., Stanford University.
- RAY FRAZER 1102 N. College Ave.
Associate Professor of English, 1952.
 B.A., Pomona College; M.A., Ph.D., University of California.
- THERESA ZEZZOS FULTON
Associate Professor of Art, 1954.
 B.A., Wellesley College; Ph.D., Radcliffe College.
- GRETCHEN GRAF JORDAN 354 Blaisdell Dr.
Associate Professor of English, 1947.
 B.A., M.A., Ohio State University; Ph.D., University of California at Los Angeles.
- KARL GEORGE KOHN 674 Colorado St.
Associate Professor of Music, 1950.
 B.A., M.A., Harvard University.
- VINCENT H. LEARNIHAN 220 W. Tenth St.
Associate Professor of History, 1949.
 B.A., M.A., Ph.D., University of California at Los Angeles.
- RICHARD N. LOUCKS 176 W. Oak Park Dr.
Associate Professor of Music, 1948.
 B.A., Pomona College; M.A., Ph.D., Eastman School of Music of the University of Rochester.

- BATES LOWRY 105 N. College Ave.
Associate Professor of Art, 1959.
 Ph.B., M.A., Ph.D., University of Chicago.
- EDWARD W. MALAN 433 Sycamore Ave.
Associate Professor of Physical Education for Men, 1950.
 B.A., Pomona College; M.A., Claremont Graduate School; Ed.D., University of California at Los Angeles.
- HOWARD H. MARTIN 1030 Moab Dr.
Associate Professor of Speech, 1956.
 B.S., M.A., Ph.D., Northwestern University.
- LEE CAMERON McDONALD 695 S. Bucknell
Associate Professor of Government, 1952.
 B.A., Pomona College; M.A., University of California at Los Angeles; Ph.D., Harvard University.
- JACK C. MILLER 725 Miramar Ave.
Associate Professor of Physics, 1952.
 B.A., Pomona College; M.A., University of California; D.Phil., University of Oxford.
- WILLIAM C. OLSON 338 Harvard Ave.
Associate Professor of Government, 1953.
 B.A., University of Denver; M.A., Ph.D., Yale University.
- BURDETTE C. POLAND 1404 Niagara Ave.
Associate Professor of History, 1958.
 B.A. Swarthmore College; M.A., Ph.D., Princeton University.
- GERHARD N. ROSTVOLD 448 Springfield St.
Associate Professor of Economics, 1952.
 B.A., M.A., Ph.D., Stanford University.
- PAUL McRAE ROUTLY 456 Baughman Ave.
Associate Professor of Astronomy on the Frank P. Brackett Foundation, and Director of the Observatory, 1954.
 B.Sc., M.Sc., McGill University; M.A., Ph.D., Princeton University.
- FREDERICK SONTAG 713 Cedarview Dr.
Associate Professor of Philosophy, 1952.
 B.A., Stanford University; M.A., Ph.D., Yale University.
- ELMER B. TOLSTED 337 W. Fifth St.
Associate Professor of Mathematics, 1947.
 B.S., M.S., University of Chicago; Ph.D., Brown University.
- HOWARD THOMAS YOUNG³ 256 E. Second St.
Associate Professor of Romance Languages, 1954.
 B.S., M.A., and Ph.D., Columbia University.

ASSISTANT PROFESSORS

- IRVING J. ADEN, JR.
Assistant Professor of Military Science and Tactics, 1960.
 B.S., University of Florida; U. S. Army Transportation School; Army Artillery School; Captain, Transportation Corps, U. S. Army.

- ALEXANDER K. BAIRD 139 Villanova Dr.
Assistant Professor of Geology, 1958.
 B.A., Pomona College; M.A., Claremont Graduate School; doctoral candidate, University of California.
- HERBERT L. BAIRD 156 E. Green St.
Assistant Professor of Romance Languages, 1957.
 B.A., Pomona College; M.A., Ph.D., University of Chicago.
- MORTON O. BECKNER 630 Harvard Ave.
Assistant Professor of Philosophy, 1957.
 B.A., University of California at Santa Barbara; M.A., Ph.D., Columbia University.
- ALVIN L. BEILBY
Assistant Professor of Chemistry, 1958.
 B.A., San Jose State College; Ph.D., University of Washington.
- MARGERY SMITH BRIGGS² 4549 Live Oak Dr.
Assistant Professor of Music, 1943.
 B.Mus., B.Mus.Ed., M.Mus., Chicago Musical College.
- EDWARD V. CERNY 2832 Rhodelia Ave.
Assistant Professor of Military Science and Tactics, 1957.
 M.B.A., University of Chicago; Major, Infantry, U.S. Army.
- FRANK W. DIXON 4542 La Deney, Montclair
Assistant Professor of Military Science and Tactics, 1958.
 B.A., University of California; Captain, Infantry, U. S. Army.
- ROBERT L. FERM 149 E. Eighth St.
Assistant Professor of Religion on the Nancy M. Lyon Foundation, 1958.
 B.A., College of Wooster; B.D., Yale Divinity School; M.A., Ph.D., Yale University.
- HOUSTON I. FLOURNOY 272 W. Eleventh St.
Assistant Professor of Government, 1957.
 B.A., Cornell University; M.A., Ph.D., Princeton University.
- ROBERT J. FOGELIN 642 N. College Ave.
Assistant Professor of Philosophy, 1958.
 B.A., University of Rochester; M.A., Ph.D., Yale University.
- MARTIN E. FULLER 428 W. Tenth St.
Assistant Professor of Chemistry, 1956.
 B.S., University of California at Los Angeles; Ph.D., Massachusetts Institute of Technology.
- ROBERT D. HERMAN
Assistant Professor of Sociology, 1960.
 B.A., Pomona College; Ph.D., University of Wisconsin.
- CHARLES M. LESLIE 122 E. Seventh St.
Assistant Professor of Sociology and Anthropology, 1956.
 B.A., M.A., Ph.D., University of Chicago.
- WALTER T. OGIER
Assistant Professor of Physics, 1960.
 B.S., Ph.D., California Institute of Technology.

- LEONARD C. PRONKO 156 E. Green St.
Assistant Professor of Romance Languages, 1957.
 B.A., Drury College; M.A., Washington University; Ph.D., Tulane University.
- WILLIAM L. QUAIDE
Assistant Professor of Geology, 1960.
 B.A., M.A., Ph.D., University of California, Berkeley.
- JOHN E. QUINLAN 109 N. College Ave.
Assistant Professor of Chemistry, 1958.
 B.S., Marquette University; M.S., University of Arkansas; Ph.D., University of Wisconsin.
- WILLARD N. RUNQUIST 721 Harrison Ave.
Assistant Professor of Psychology, 1959.
 B.A., University of Redlands; M.A., Ph.D., Northwestern University.
- HELEN M. SMITH 120 W. Third St.
Assistant Professor of Music, Music Librarian, 1949.
 B.A., Pomona College; graduate study, Claremont College, Columbia University; doctoral candidate, Indiana University.
- HERBERT B. SMITH 777 W. Ninth St.
Assistant Professor of History, and Assistant Dean of Admissions, 1952.
 B.A., M.A., University of Iowa; Ph.D., University of California.
- BARBARA STAY
Visiting Assistant Professor of Zoology, 1960.
 B.A., Vassar College; Ph.D., Radcliffe College.
- SALLY ANNE TAYLOR 1036 N. College Ave.
Assistant Professor of Physical Education for Women, 1950.
 B.A., Pomona College; M.A., Stanford University; Graduate work, University of Southern California.
- FRANKLIN V. WALKER 1143 Yale Ave.
Assistant Professor of Economics, 1959.
 B.A., University of California; M.A., Ph.D., Harvard University.

INSTRUCTORS

- DAVID J. AITKEN Clark Hall
Instructor in English, 1959.
 B.A., University of Wisconsin; M.A. and doctoral candidate, Princeton University.
- WILLIAM D. ANDRUS
Instructor in Zoology, 1960.
 B.A., Oberlin College; doctoral candidate, Stanford University.
- ANNE H. BAGES 1279 Yale Ave.
Instructor in Physical Education for Women, 1959.
 B.S., University of Illinois; M.S. candidate, University of California at Los Angeles.
- GORDON K. DOUGLASS 706 Santa Clara Ave.
Instructor in Economics, 1959.
 B.A., Pomona College; doctoral candidate, Massachusetts Institute of Technology.

The Faculty

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- JACQUES EHRMANN 624 Colorado St.
Instructor in Romance Languages, 1959.
Licence es Lettres, University of Paris; doctoral candidate, University of California at Los Angeles.
- ANNE E. HAVENS 721 Harrison Ave.
Instructor in English, 1959.
B.A., Mt. Holyoke College; B.A., University of Oxford; Ph.D., Yale University.
- JEANNETTE HYPES 2072 Peyton Rd., La Verne
Instructor in Physical Education for Women, 1957.
B.A., Bowling Green State University.
- MARIE JEANNE LEFEVRE French House
Instructor in French and Directress of French House, 1960.
Licence es lettres, University of Rennes; Diplome d'études superieures, University of Paris; M.A. candidate, Claremont Graduate School.
- DIAN I. LINDBERG
Instructor in German, 1960.
B.A., M.A., doctoral candidate, University of California at Los Angeles.
- RICHARD E. MACMILLEN
Instructor in Zoology, 1960.
B.A., Pomona College; M.Sc., University of Michigan; doctoral candidate, University of California at Los Angeles.
- WILLIAM LACY MALCOMSON
Instructor in Religion, 1960.
B.A., Denison University; B.D., Colgate Rochester Divinity School; M.A., doctoral candidate, Princeton University.
- MORTON J. MILLS
Instructor in Physical Education for Men, 1957.
B.S., Illinois State Normal University; M.A., Los Angeles State College; Graduate Study, Claremont Graduate School.
- RICHARDS RUBEN 670 Doane Ave.
Instructor in Art, 1958.
Graduate of Chouinard Art Institute.
- GEORGE H. SAGE 1060 N. College Ave.
Instructor in Physical Education for Men, 1959.
B.A., M.A., Colorado State College; doctoral candidate, University of California at Los Angeles.
- ARTHUR M. SCHAEFER
Instructor in Economics, 1960.
B.A., M.A., doctoral candidate, University of Pennsylvania.
- RUSSELL SHERMAN
Instructor in Music, 1959.
B.A., Columbia University; Student and Teaching Associate in Piano of Eduard Steuermann.
- MARTIN L. WINE
Instructor in English, 1960.
B.A., Northwestern University; M.A. and doctoral candidate, Harvard University.

PART-TIME FACULTY

- GEORGE R. BACH 450 N. Bedford Dr., Beverly Hills
Psychology
 M.A., University of California at Los Angeles; Ph.D., University of Iowa.
- JEAN BARRETT 4625 Philadelphia, Chino
Sociology
 B.A., M.A., doctoral candidate, University of California at Los Angeles.
- CALVIN J. FREDERICK 1283 Cornelia, Pomona
Psychology
 B.A., University of Oklahoma; M.A., Ph.D., University of California at Los Angeles.
- LEWIS L. GRIMM 220 W. Bonnie Brae Court, Ontario
Engineering Drawing
 B.S., California Institute of Technology; M.A., Claremont Graduate School.
- JOHN L. HAER
Sociology
 B.A., University of Cincinnati; M.A., University of Chicago; Ph.D., State College of Washington; doctoral candidate, Claremont Graduate School.
- FREDERICK H. HAMMERSLEY 905 3/4 Sanborn Ave., Los Angeles
Painting
 Student, Chouinard Art Institute; Ecole des Beaux Arts, Paris; Jepson Art Institute.
- JACK ZAJAC
Sculpture
 Studied at Claremont Graduate School; American Academy in Rome; and in Segovia, Spain.

MUSIC

- KALMAN BLOCH 3914 Franklin Ave., Los Angeles
Clarinet
 First Clarinetist, Los Angeles Philharmonic Orchestra.
- THELMA NEFT GELLER 3726 Lynoak Dr., La Verne
Oboe
 Graduate, Curtis Institute of Music. Formerly oboist with the Pittsburgh Symphony Orchestra.
- JEAN C. HOUGHTON 1434 Beverly Glen Blvd., Los Angeles
Voice
 Concert artist. Advanced study with Johanna Kristofy, Radna Linne, and Carl Ebert.
- MARGOT JEAN 272 S. Almont, Beverly Hills
Violoncello
 Pupil of Jacob at the Royal Conservatoire in Brussels.
- RALPH W. PIERCE 531 E. Granada Ct., Ontario
Piano
 Student of Ethel Leginska.
- JEAN PILON 3005 Rockmont Ave.
Voice
 B.A., M.A., Chicago Musical College.
- RALPH S. PYLE 1450 Casa Grande, Pasadena
French Horn
 B.A., M.A., New York University; French Horn, Los Angeles Philharmonic Orchestra.

- DOROTHY REMSEN 6331 Quebec Dr., Hollywood
Harp
 Harpist, Los Angeles Philharmonic Orchestra.
- ROGER STEVENS 1677 E. Mountain St., Pasadena
Flute
 Flutist, Los Angeles Philharmonic Orchestra.
- GEORGE H. TYLER 140 E. Twelfth St.
Brass Instruments
 Formerly first trumpet with Los Angeles Philharmonic Orchestra.

MEMBERS OF THE CLAREMONT GRADUATE SCHOOL FACULTY
 OFFERING COURSES AT POMONA COLLEGE

- GEORGE S. BLAIR
Associate Professor of Government
 B.A., B.S., M.S., Kansas State Teachers College; Ph.D., Northwestern University.
- SHERWIN CARLQUIST
Assistant Professor of Botany
 B.A., Ph.D., University of California.
- CLYDE E. CURRAN
Professor of Education
 B.A., San Francisco State College; M.A., Ed.D., Stanford University.
- J. LEROY DAVIDSON
Professor of the History of Art
 B.A., Harvard University; M.A., New York University; Ph.D., Yale University.
- MALCOLM P. DOUGLASS
Associate Professor of Education
 B.A., Pomona College; M.A., Columbia University; Ed.D., Stanford University.
- EDWIN S. FUSSELL
Associate Professor of English and American Literature
 B.A., Pomona College; M.A., Ph.D., Harvard University.
- ARTHUR R. KING, JR.
Associate Professor of Education
 B.A., University of Washington; M.A., Ed.D., Stanford University.
- FRED WARNER NEAL
Associate Professor of International Relations
 B.A., M.A., Ph.D., University of Michigan.
- F. THEODORE PERKINS
Professor of Psychology
 B.A., M.A., Ph.D., University of Kansas.
- PAUL E. SULTAN
Professor of Economics
 B.A., University of British Columbia; M.A., Ph.D., Cornell University.
- MARSHALL WAINGROW
Associate Professor of English Literature
 B.S., Harvard University; M.A., University of Rochester; Ph.D., Yale University.

¹Absent on leave, first semester, 1960-61.

²Absent on leave, second semester, 1960-61.

³Absent on leave, 1960-61.

FACULTY COMMITTEES 1960-61

*First person named is the Committee Chairman**Administration*—President, Dean of the Faculty, Nelson Smith, Jones, Walton, Mulhauser, McIntyre, McDonald.*Admissions*—Sanders, Beckner, Mrs. Davies, Frazer, Fryer, Herbert Smith, Wheaton.*Athletics:**Faculty Committee*—Phillips, Cooke, Rostvold, Strehle, Vieg.*Advisory Council to Director*—Strehle, Jaeger, Phillips, three student representatives, and two alumni representatives.*Representatives on the Southern California Intercollegiate Athletic Conference*—Jaeger, Strehle, Fryer.*Classification*—Strathmann, Bracher, Fiske, Fogelin, Henke, Learnihan.*College Radio Station*—Martin, Blanchard, Davidson, Routly, Sanders.*Courses of Study*—Strathmann, Bell, Gleason, Lowry, Phillips, Nelson Smith, Vieg, Walton.*Honors*—Kemble, Faust, Kohn, Sontag.*International Relations*—Olson, Ch'en, Douglass, Leggewie, Leslie, Poland, Vieg.*Library*—Mulhauser, Benson, Carroll, Mrs. Davies, Mr. Davies, Hamilton, Jones, McIntyre, Rostvold, Weismiller.*Personnel*—Beatty, Faust, Havens, Learnihan, Letarte, Miller, Nider, Pronko.*Pre-Law*—Gleason, Douglass, Flournoy, Holmes.*Pre-Medical*—Hansch, Amrein, Beilby, Coltrin, MacMillen, Tolsted.*Public Events*—Strathmann, Bracher, Kemble, Kohn, Martin, McDonald, Miller.*Religious Activities*—Ferm, Beatty, Loucks, Olson, Russell, Sontag, Walton.*Scholarship*—Herbert Smith, Beatty, Cooke, Loucks, Malan, Sanders, Walton.*Student Affairs*—Poland, Beatty, Mrs. Davies, Ferm, Jaeger, Sanders, Vieg, Walton. The Student Affairs Committee constitutes the faculty representation on the Interim Committee, which is a student-faculty committee.*Vocational Counselling and Placement*—Walton, Alexander Baird, Beatty, Bell, Cawthorne, Herman, Leggewie, Russell.



College Avenue Runs Through the Campus

Holmes Hall — a Center for the Humanities





*Seaver Laboratory Is Ideally Equipped for Work
in Geology, Biology, and Zoology*

Patio of the Gladys Montgomery Art Center



The College

POMONA COLLEGE is an independent, privately endowed, coeducational institution of arts and sciences. Originally established in 1887 to serve its immediate region, the college now enjoys support from every section of the United States and from many foreign countries. Enrollment is restricted to approximately one thousand students.

The purpose of the college is to awaken the minds and develop the personalities of its students so that they may attain full growth both as individuals and as responsible members of a democratic society.

Pomona College was incorporated on October 14, 1887, by a group of early settlers who wanted to see in Southern California a "Christian College of the New England type." Under the leadership of the Reverend Charles B. Sumner, a devoted and self-sacrificing group were appointed members of the first Board of Trustees by the General Association of Congregational Churches of Southern California. The original trustees were: Henry K. W. Bent, Nathan W. Blanchard, Anson Brunson, Elwood Cooper, James T. Ford, James H. Harwood, Dexter D. Hill, Theodore C. Hunt, George W. Marston, John K. McLean, Henry A. Palmer, Seth Richards, Charles B. Sheldon, Charles B. Sumner, and Andrew J. Wells.

Instruction was begun in September, 1888, in a small rented house in the city of Pomona. The following January an unfinished hotel (now Sumner Hall) in nearby Claremont, together with considerable land adjacent, was given to the College and the work was transferred to that place. Although this location was originally regarded as temporary, Claremont later became the permanent home of the College. By that time, however, the name of "Pomona College" had become so definitely fixed to the institution that it was retained, notwithstanding the location.

The College met a need for higher education in Southern California, and after the initial years its growth was constant. The first class was graduated in 1894, at which time the total number of college students was forty-seven. The preparatory department, essential in the beginning, was discontinued in 1910.

With the freedom characteristic of Congregational organization, Pomona was soon entrusted with its own government and in 1903 was freed from any organic association with the church of its origin.

Today the Board of Trustees is a self-perpetuating body, free from ecclesiastical control, but pledged under its charter to maintain the institution as truly Christian, though nonsectarian.

Pomona is a liberal arts college, which affords a full academic program in the social sciences, the natural sciences, and the humanities. The curriculum is planned to give a comprehensive understanding of man and the universe in which he lives, rather than technical training in highly specialized fields. The College believes that the best preparation for life is liberal education, and it aspires thus to train men and women for leadership in the professions, in business, and in civic affairs.

Pomona believes that a college should be a genuine community in which faculty and students meet easily and frequently and students live, eat, and work together on the campus. To this end, the College maintains a large faculty in relation to its student body (during 1960-61 there will be approximately one faculty member for every ten students) and provides one of the finest groups of dormitories and dining halls in the country. The residential organization of undergraduate life at Pomona is one of the most important features of the total educational program.

The College owes the development of the campus and the growth of its financial resources to the generosity of patrons, friends, and alumni. As an independent institution, without assistance from any governmental or church body, Pomona must rely upon gifts for the expansion of its program and for the increase of its endowment, upon which depends the financial stability of the college. From the contributions of her benefactors, the total assets of Pomona are now over \$29,000,000, of which \$16,500,000 is in endowment and other non-expendable funds.

THE ASSOCIATED COLLEGES

Pomona College is the original institution in a group of five Associated Colleges, of which the other members are Claremont College, Scripps College, Claremont Men's College, and Harvey Mudd College. Each college serves its own distinctive purposes, determines its own policies and requirements, possesses legal autonomy, and has its independent board of trustees and faculty. However, the five institutions cooperate in their academic programs and in the use of certain common facilities. The undergraduate colleges open their classes

without tuition charges to students in the other undergraduate institutions. Selected courses in the Claremont Graduate School are open to seniors in the undergraduate colleges. The combined resources of the libraries, the public events, the college church, the well-equipped medical dispensary and infirmary, the central business office, and the technical services are available to all the colleges.

The group, which represents a combination of English and American practices, arose from the desire of Pomona College to maintain for itself the advantages of a small college and at the same time to provide at Claremont an educational opportunity for the increasing numbers of young men and women who were seeking admission to the College at the end of World War I.

Under the leadership of the Pomona trustees, the institution now incorporated as Claremont College was established on October 14, 1925, for the inauguration of the new plan. It assumed the responsibilities of a central coordinating agency, the direction of graduate instruction for the Associated Colleges, and the foundation of new institutions, as they might be required. Claremont College conducts its instructional program under the name of "The Claremont Graduate School." In addition to its own appointees, the faculty of the Claremont Graduate School includes most members of the four undergraduate faculties.

An early objective of the group plan was the establishment of a college for women. In September, 1927, Scripps College, named in honor of Miss Ellen Browning Scripps, whose generosity and vision made it possible, was opened as a residence college for 250 women. From the beginning, the main feature of its curriculum has been a unified sequence of courses in the humanities.

Claremont Men's College, the third undergraduate institution, was established in 1946 as a liberal arts college educating men for management and the professions. The College has developed residence and academic facilities for 350 students.

Harvey Mudd College, named in honor of the beloved late President of the Board of Fellows of Claremont College, was incorporated as the fourth undergraduate college in 1956. The college, which offers a program in basic science and engineering, began instruction in September, 1957.

The joint services of the Associated Colleges are administered by a committee of the five Presidents, of whom one serves each year as Chairman and also Provost of the Associated Colleges, an office established in 1959.

LOCATION

Pomona College is exceptionally fortunate in its location and its surroundings. The city of Claremont, which has grown up around Pomona and the other Associated Colleges, is an academic, residential community of distinction. Although Claremont is a quiet college town of some 12,000, it is but thirty-five minutes from the center of Los Angeles by the San Bernardino Freeway, on which there is convenient bus service.

Claremont is on the main line of the Santa Fe Railway, and the transcontinental lines of the Union Pacific and the Southern Pacific pass through Pomona, a city of over 65,000, only four miles away. The college is easily accessible by air. There is frequent helicopter service from the City of Pomona to Los Angeles. Two airlines operate east and west flights from Ontario International Airport, only seven miles from the college campus.

The Campus

POMONA COLLEGE has a campus of great beauty, and one of the most modern and best equipped physical plants of any college in the United States. The College occupies approximately one hundred and twenty acres, of which sixty are included in Blanchard Park, the gift of Nathan W. Blanchard, approximately ten in Alumni Athletic Field, and fifty in the campus proper. The College centers on Marston Quadrangle, built and endowed by George W. Marston, 1850-1946, distinguished citizen of San Diego, an original trustee of Pomona and for many years president of the board.

Other beautiful and specially landscaped areas are Memorial Court, honoring certain former members of the College, and Harwood Garden on the men's campus which honors the late Frank H. Harwood, '98, a trustee and former President of the Board. The Stover Memorial, from College Avenue to College Way, honors the memory of the late Clarence T. Stover, '21, a trustee and chairman of the Buildings and Grounds Committee.

Pomona College has thirty-one buildings of its own, and also shares eight other buildings which Claremont College owns and operates for all the Associated Colleges.

ADMINISTRATIVE AND GENERAL ACADEMIC BUILDINGS

Mary L. Sumner Hall, a hotel which in 1889 became the original building of the college, was removed from its first site in 1922, remodeled for administrative and faculty uses, and named in memory of the wife of Rev. Charles B. Sumner, LL.D., one of the Founders of Pomona.

Holmes Hall, the first academic building, erected by the college in 1893, is a memorial to Cyrus W. Holmes, Jr., of Monson, Massachusetts. Reconstructed in 1916, it is now devoted to recitation rooms, departmental offices, and an auditorium seating 750. A small addition for a Drama Workshop was built in 1957.

The Andrew Carnegie Building, a gift of Mr. Carnegie, which served as the College Library from its construction in 1908 to June, 1952, was remodeled in 1952, for use as a classroom and office building for the Social Sciences.

Pearsons Hall of Science, the gift of Dr. D. K. Pearsons in 1898, and for many years the home of the Departments of Physics and

Mathematics, was renovated and reorganized during the summer of 1958 as a classroom and office building for non-laboratory departments.

The Associated Colleges maintain a joint Business Office in the new Pendleton Business Building, constructed in 1959, and named in honor of Mr. and Mrs. Morris B. Pendleton, '22. The colleges are served by a central heating plant, and by a common shops and maintenance department.

ART AND MUSIC BUILDINGS

Rembrandt Hall, built in 1914 and enlarged in 1937, is the original art building of the College. Since 1958-59, it has been devoted entirely to studio purposes.

The Gladys Montgomery Art Center, named for Mrs. Victor Montgomery, which was opened in September, 1958, amplified our art facilities by providing sculpture studios, a lecture hall, exhibition galleries, and departmental offices.

Mabel Shaw Bridges Hall of Music, given by Mr. and Mrs. Appleton S. Bridges of San Diego in 1915, in memory of their daughter who died while a student at Pomona College, offers excellent facilities for the study of music. It contains, in addition to private studios, an unusually beautiful auditorium seating 800.

Mabel Shaw Bridges Auditorium, also the gift of Mr. and Mrs. Appleton S. Bridges in memory of their daughter, was constructed in 1931. It has a seating capacity of 2600, and is held and administered by Claremont College on behalf of the Associated Colleges.

The Open-Air Theatre, built in 1910, which is located in Blanchard Park, is in process of reconstruction.

SCIENCE BUILDINGS

Mr. Frank R. Seaver, '05, has made possible at Pomona, the construction of two magnificent new science buildings, which with their equipment cost approximately \$3,250,000.

Robert A. Millikan Laboratory, the physics-mathematics-astronomy building, which was placed in use in September, 1958, provides unexcelled facilities and equipment for instruction in these departments.

Seaver Laboratory, the biology-geology building, which was opened in September, 1959, has the finest and most modern equipment for work in these fields.

Frank P. Brackett Observatory, the gift of Mr. Llewellyn Bixby,

'01, has served the Department of Astronomy since 1908. A second building in the Observatory area, the gift of Mr. Frank R. Seaver, '05, was constructed in 1950. The dome houses the Clara Whitney Shatto Reflector Telescope, and the main floor contains classrooms and a library.

Mason Hall of Chemistry, the gift of Mr. W. S. Mason, in 1922, provides excellent facilities for the study of Chemistry.

Crookshank Hall, given in 1922 by Dr. D. C. Crookshank, is occupied by the Departments of Botany and Psychology.

Harwood Hall, given in 1915 by Mr. A. P. Harwood, contains lecture rooms and laboratories for the Department of Psychology.

HONNOLD LIBRARY

The Honnold Library, which was given by Mr. and Mrs. William L. Honnold to Claremont College for the Associated Colleges, since 1952 has housed the Pomona College Library along with the libraries of Claremont Men's College, the Claremont Graduate School, a part of the Scripps College Library, and since 1956 the library of Harvey Mudd College.

PHYSICAL EDUCATION AND ATHLETIC FACILITIES

The War Memorial Gymnasium, given to the college by students, alumni, trustees, and friends, commemorates the men and women of Pomona College who gave their lives in World War I and World War II. Completed in December, 1950, the building includes an excellent basketball court with seats for 1200 spectators, a classroom, a memorial library, staff offices, and commodious shower and locker rooms.

The Memorial Training Quarters, constructed in 1922 as a memorial to the men of Pomona College who lost their lives in World War I, has been incorporated as the east wing of the new Memorial Gymnasium. It represents the gift of the parents of one of these men, Sheldon Gerry, '17, supplemented by the gifts of alumni, students, and friends.

A swimming pool, of the standard size for water polo, and fully equipped with modern appliances, is open to both men and women for instruction and recreation throughout the year.

Alumni Field, consisting of about ten acres, has been developed by the alumni into athletic grounds unsurpassed in the Southwest

in beauty of setting. First-class tennis courts, an excellent track, baseball and football fields, a hockey field, and basketball courts are within the limits of the campus. A ticket booth, wall, and gate for Alumni Field were built in the autumn of 1950, as a gift of the class of 1916.

Athearn Field, given in memory of the late Fred G. Athearn, of the class of 1900, by a group of his business friends, and constructed in 1957-58 on land east of Clark Hall, provides touch football and softball fields, and other recreational facilities for the men's campus.

The William Renwick Gymnasium, named in memory of an early donor to the college, was first erected as a military barracks in World War I. It provides general facilities for the women's department of physical education.

RESIDENCE AND DINING HALLS FOR MEN

Helen R. Walker Hall, the gift of Helen R. Walker of Glendale, California, was opened for use in 1953. Its rooms, grouped around three courtyards, accommodate 108 men. Walker Hall also includes a lounge and reception room for the entire men's campus.

Eli P. Clark residence unit for men, erected in 1929, includes three dormitories with accommodations for 286 students.

Albert K. Smiley Hall, the first dormitory for men, built in 1908, and thoroughly renovated during the summer of 1957, accommodates sixty-nine students.

Edwin C. Norton Hall, constructed in 1956, in memory of the late Edwin C. Norton, first faculty member and first Dean at Pomona, contains thirty-six single rooms.

Lucien H. Frary Dining Hall for Men, given by Mr. George W. Marston in 1929 in memory of Rev. Lucien H. Frary, a Trustee from 1892 to 1903, seats 375 in the main hall and includes three smaller dining rooms for special uses.

RESIDENCE AND DINING HALLS FOR WOMEN

Harwood Court, constructed in 1921 and named in memory of Mrs. Charles E. Harwood, and including Strong Hall, accommodates 180 women.

Florence Carrier Blaisdell Hall, erected in 1936 and named in honor of Mrs. James A. Blaisdell, wife of the fourth President of the College, houses 120 women.

Della Mulock Mudd Hall, which honors the wife of the late Seeley

W. Mudd, a Trustee of Pomona, was completed in the spring of 1947. The building has accommodations for 100 women, most of them in single rooms.

Anna May Wig Hall, named in memory of the late Mrs. R. J. Wig, was placed in use in September, 1959. It has accommodations for 96 women.

The College also maintains two smaller residences for women, one of which is used as the Maison Française for students majoring in French, and one as the Casa Hispánica for students majoring in Spanish.

Beautiful and commodious dining facilities are available for all women students. Residents of Harwood Court and Anna May Wig Hall are served by the Aurelia Squier Harwood Memorial Dining Hall built in 1931.

The Mary McLean Olney Dining Hall, constructed in 1936, which has accommodations for 120 students, serves many special college purposes and occasions.

Gibson Dining Hall, built in 1949, honors the late Jessie E. Gibson, former Dean of Women. It serves the students living in Blaisdell Hall and Mudd Hall.

EDMUNDS UNION

The Charles K. Edmunds and Katharine P. Edmunds Student Union, which honors the late fifth President of the College and his wife, provides a social center for all students and an attractive ball-room in which all formal dances are held. This building, made possible by the gifts of many parents, supplemented by funds from the Associated Students and the bequest of the late Florence Riley, was built in 1937 and houses student offices, including publications, the manager's office, and the Cooperative Store.

The east wing of Edmunds Union, which houses the fountain and sandwich facilities, and also includes a full basement for recreational use, was completed in January, 1951, as a gift of the Associated students.

HEALTH FACILITIES

Memorial Infirmary, given in 1931 in memory of Colonel Seeley W. Mudd, is administered by Claremont College and is operated jointly for the benefit of students in all the Associated Colleges at Claremont. Twenty-seven beds are available. The Infirmary is situated on Amherst Avenue, north of Foothill Boulevard.

The Baxter Medical Building, the gift of Doctor and Mrs. George E. Baxter to Claremont College, serves the students of the Associated Colleges. It provides an office where the College Physicians and a nurse are available for consultation and the treatment of minor ailments.

OTHER FACILITIES

The President's House at 345 North College Avenue was the gift of Dr. D. K. Pearsons. It was constructed in 1900, and has been the home of all Presidents of the College since that time.

A replica of the original house in Pomona in which the College first opened in September, 1888, was erected on the campus in 1937 through the generosity of an anonymous donor.

The College operates its own independent deep well water supply, the gift of Edward P. and Mary G. Bosbyshell.

THE FACULTY HOUSE

Pomona shares with the other Associated Colleges the beautiful Faculty House which the late Harvey S. Mudd and Mrs. Mudd and the Seeley W. Mudd Foundation gave to Claremont College for the use of the faculties of all the colleges at Claremont. Located just south of the Honnold Library, the Faculty House provides an ideal meeting and recreational center for faculty groups.

CENTER FOR RELIGIOUS ACTIVITIES

The McAlister Center for Religious Activities, placed in use in September, 1959, is the administrative home of the College Church, and the center for religious activities in the Associated Colleges. The building was made possible by a gift from the estate of the late Mrs. Amelia McAlister Upshur of San Marino, California, and by contributions from each of the Associated Colleges.

THE CLAREMONT INN

The Claremont Inn, beautifully located on College Avenue opposite the campus since 1906, is the guest house of the colleges and community. The Inn is owned and operated by Pomona College. Parents and friends are invited to use the facilities of the Inn during visits to Claremont. Public and private dining rooms and room accommodations for sixty guests are available.

Admission

THE COLLEGE SEEKS students of superior academic promise, high standards of personal conduct, and sufficient stability and self-discipline to carry on their education without the necessity of excessive supervision and direction.

Students are admitted to Pomona College upon evidence which satisfies the Committee on Admissions that: (1) the applicant possesses the necessary preparation and ability to carry successfully the academic program offered here, and will actually use them to that end; (2) the College, with its program and traditions, and the applicant with his capacities, interests and needs, are mutually well suited to each other.

It is not possible to state a minimum record which will insure admission as the College has many more qualified applicants than available space. In the selection of students academic achievement and promise are primary factors but the Committee makes every effort to take into account character and special aptitudes and skills. The final decision is based on the judgment of the applicant as a person rather than on narrowly technical requirements.

Students are not considered to be officially matriculated in the College until they have completed satisfactorily one semester in full-time attendance. (See page 84.) Membership in the College is considered a privilege and the College therefore expects student performance and conduct which are commensurate with its standard.

Any person interested in preparing for Pomona, or any school official who is responsible for directing the preparatory programs of students is invited to call on the Dean of Admissions at any time regarding the acceptability of candidates or for advice on specific programs.

For further information, write to Office of Admissions, Sumner Hall, Pomona College, Claremont, California.

ADMISSION TO FRESHMAN STANDING

The College does not require any particular pattern of secondary school courses but assumes candidates will have taken a college preparatory course. Under normal circumstances this is assumed to mean four or five academic subjects each year and particularly during the eleventh and twelfth grades. Three years of mathematics

are now advised for all students and four for students who expect to continue in mathematics or physical sciences. There is no absolute requirement for credit in a foreign language, but in most fields of concentration a reading knowledge of at least one foreign language is essential. It is much to the advantage of students to get a solid foundation in at least one foreign language before entering college. Four years of English are advised. Two or three years in sciences and in the social sciences are also advised.

The Committee considers the quality of the record more important than the exact arrangement of subjects. Students are advised to register for honors or advanced placement sections when these are available and the student is eligible for them.

It is normally assumed that candidates will have received a high school diploma. Students from foreign countries or those who are following unusual patterns of preparation may submit other evidences of their readiness to undertake college work.

All candidates are required to take the Scholastic Aptitude Test administered by the College Entrance Examination Board. (See page 35 for further information.) This requirement does not lessen the importance of the school record, the personal ratings and personal interviews. A personal interview is not required unless requested by the Committee.

Students who request college credit for honors courses taken in high school are required to submit scores on the Advanced Placement Tests given by the College Entrance Board. The decision as to whether or not credit will be allowed will be made by the Classification Committee and reported at the time of registration.

It is recommended that applications be filed at the beginning of the senior year in high school. The Scholastic Aptitude Test should be taken either in December, January, or February, and the candidate is responsible for registering for this with the College Entrance Board. The regular selection of new students will be made from applications received on or before March 1, provided candidates have taken the Scholastic Aptitude Test in February or earlier.

Since there are more applicants than can be accepted, the Committee attempts to select the strongest candidates with little regard to the chronological order in which applications are received. In all cases admission is granted subject to evidence of satisfactory physical condition on the part of the candidate.

ADMISSION TO ADVANCED STANDING

In considering applications for advanced standing the College follows the general policy used for freshman candidates. It requires an official transcript, or transcripts, of all college work for which the applicant has been previously registered. These transcripts must show the detailed record in all secondary as well as all collegiate institutions attended. The College further requires honorable dismissal from the previously attended institution together with recommendations from the proper college officials. In addition all candidates are required to submit scores on the Scholastic Aptitude Test given by the College Entrance Examination Board. It is not necessary to repeat the test if it was taken during the Senior year in secondary school.

Credit allowed for work taken in other institutions will be determined by the Classification Committee after the candidate has been accepted.

ADMISSION TO SPECIAL CLASSIFICATION

Mature students, particularly those equipped for advanced studies, may be admitted as special students to courses for which, by ability and preparation, they may be fitted. Special students are not candidates for a degree, though students admitted to this classification may be accepted later as candidates for a degree.

COMBINED PLAN WITH CALIFORNIA INSTITUTE OF TECHNOLOGY

Along with several other liberal arts colleges, Pomona has an arrangement with the California Institute of Technology whereby qualified students may receive the Bachelor of Arts degree from Pomona and a Bachelor of Science degree from the California Institute of Technology after a combined five-year program, of which the first three years are taken at Pomona. Without the combined plan at least six years would usually be required to complete the work for both degrees. Students under the combined plan will be accepted at the California Institute of Technology without examination if recommended by Pomona. For detailed program see page 71.

APPLICATION PROCEDURE

Application for admission to Pomona College must be made on the form furnished by the college and all credentials must be filed with the Committee on Admissions. The forms and credentials required are:

1. *Application Form I.* Including \$20.00 fee, which is not normally returnable. However, it will be refunded to anyone who files a scholarship application showing unusual need and who requests a refund in writing.
2. *Personal Rating Scale Form II.* Confidential reports by the principal or counselor and classroom teacher to be sent directly to the Committee on Admissions.
3. *Applicant's Statement of Qualifications.* The Committee seeks the most complete possible picture of each candidate and to this end requires a personal autobiographical statement to supplement the other information. Some or all of the following points may be discussed although the candidate need not consider this an outline to be followed: (1) your educational plans for the next four years and for graduate work if you plan this; (2) your major interests and aptitudes, either of an academic or non-academic nature; (3) if Pomona is your first choice college, your particular reasons for choosing it; (4) any preparation for college other than that which will be evident from your school record. *No printed form is provided.* A typed letter not exceeding 1000 words is suggested.
4. *Official Transcript* of high school record to date. At the time of selection of candidates, work in progress will be considered in fulfillment of requirements, and admission will be granted subject to the filing of a final transcript showing the satisfactory completion of all secondary school work. The transcript form ordinarily used by the school is satisfactory. It should include an interpretation of the grading system. It should not be sent until the first half of the senior year has been completed.
5. *Medical Certificate*, signed by a licensed M.D., on a form furnished by the college after admission has been granted provisionally. The college reserves the right to reject students for health reasons.
6. *Room Deposit* of \$50 is due at the time admission is accepted. No refund of the room deposit will be made if a student withdraws before entrance. (See page 39 for regulations concerning the refund of this deposit for matriculated students.)

Failure to make this payment results in the cancelling of admission. Candidates on the alternate list for whom places are not provided will have the entire deposit refunded.

SCHOLASTIC APTITUDE TEST

All candidates for admission to Pomona College are required to take the Scholastic Aptitude Test administered by the College Entrance Examination Board and are held responsible for making application to the Board. Students who plan to enter in September should take the test in December, January, or February. Students who plan to enter in February should take it in May, August or December. Any one of the three dates is satisfactory. Freshmen are not admitted in February, but there is usually space for a few transfer students in mid-year.

The College Entrance Examination Board will hold six series of examinations in 1960-61. Application to take an examination must be filed approximately four weeks in advance of the examination date. The schedule for the examinations with the dates of registration is as follows.

<i>Date of Tests</i>	<i>Regular Registration Closes</i>	<i>Late Registration Closes</i>
Dec. 3, 1960	Nov. 5, 1960	Nov. 19, 1960
Jan. 14, 1961	Dec. 17, 1960	Dec. 31, 1960
Feb. 4, 1961	Jan. 7, 1961	Jan. 21, 1961
Mar. 18, 1961	Feb. 18, 1961	Mar. 4, 1961
May 20, 1961	Apr. 22, 1961	May 6, 1961
Aug. 9, 1961	July 12, 1961	July 26, 1961

The above dates apply to centers on the North American Continent. Information about dates for other centers is contained in the College Board Bulletin of information. There is a penalty fee of \$3.00 for late registrants.

For admission to Pomona College applicants are required to take the Scholastic Aptitude Test only. It is not necessary to take the Achievement Tests.

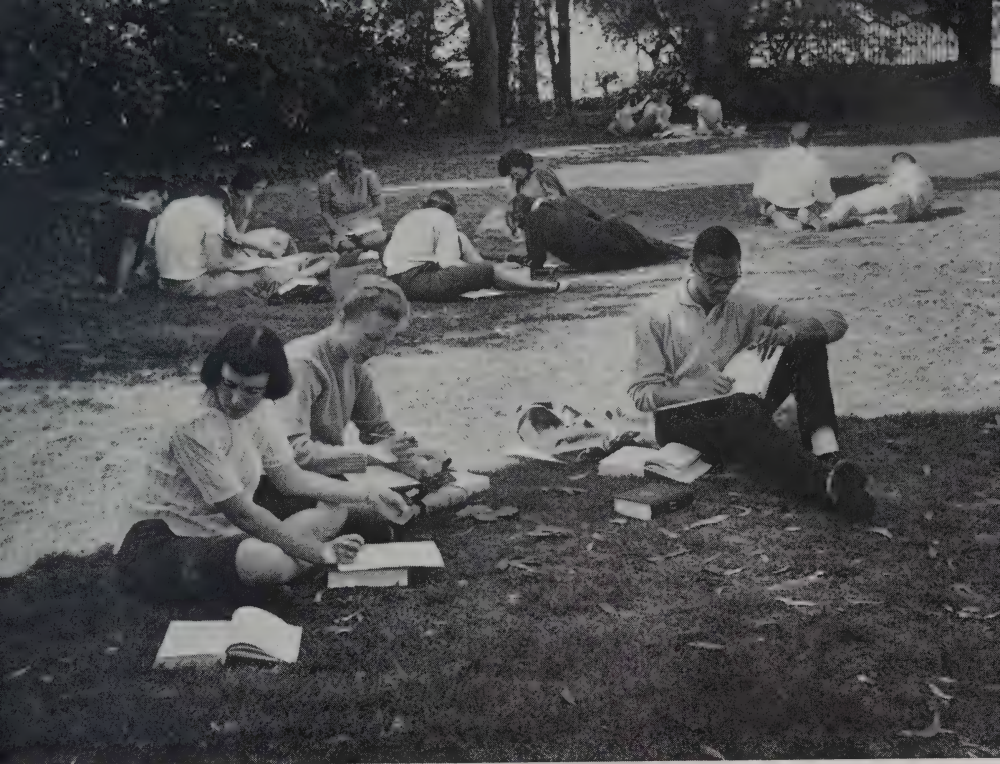
Copies of the Bulletin of Information may be obtained without charge from the College Entrance Examination Board. The Bulletin contains rules regarding applications, fees and reports; rules for

the conduct of the tests; advice to candidates; descriptions of the tests; sample questions; and lists of examination centers.

Candidates must secure application forms from the College Entrance Examination Board and file completed forms, accompanied by the examination fee of \$4.00, at one of the offices described below. If possible, applications should be filed several weeks in advance of the closing date for regular registration for an examination.

Students who wish to take the examinations in any one of the following western states or Pacific areas: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming, Alaska, Hawaii, Mexico, Alberta, British Columbia, Australia, and all Pacific islands including Formosa and Japan, should address their inquiries and send their applications to College Entrance Examination Board, P.O. Box 27896, Los Angeles 27, California.

All others should write to College Entrance Examination Board, P. O. Box 592, Princeton, New Jersey.



Class in Botany

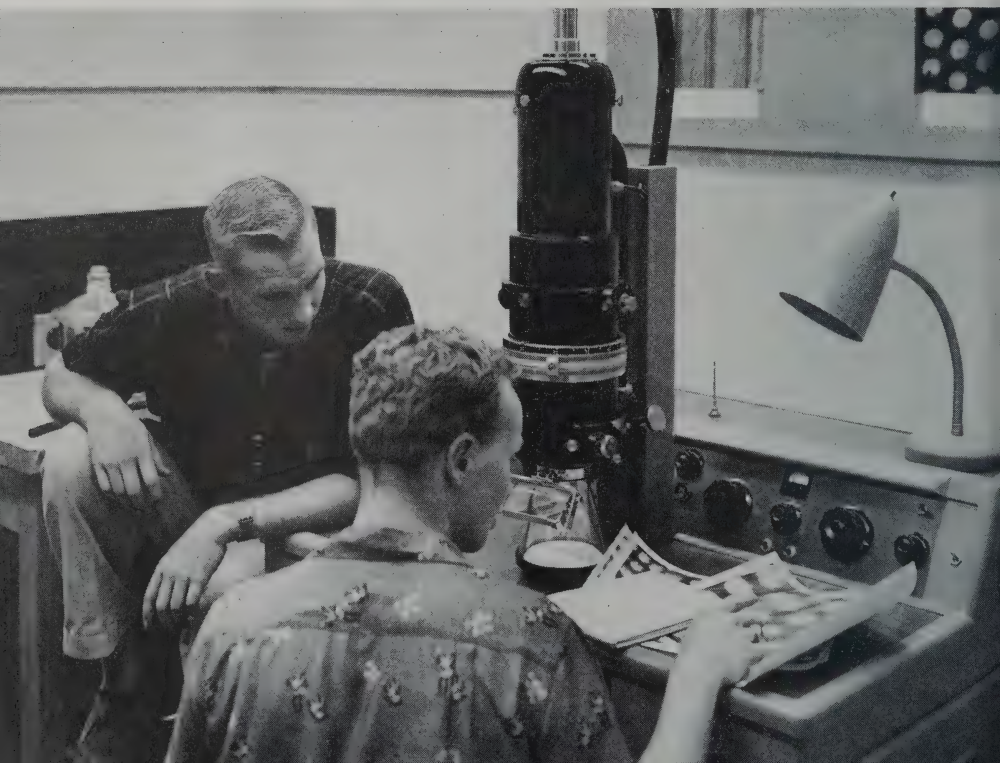
*Millikan Laboratory Houses the Departments of
Astronomy, Mathematics and Physics*





*Anna May Wig Hall, a Residence Hall for Women,
Was Dedicated October 13, 1959*

Electron Microscopes Are Provided for Both Physics and Biology Laboratories





Stover Memorial Walk

Harwood Court — Residence Hall for Women





Frery Dining Hall for Men — Seen from Walker Hall Lounge

Central Court of the Men's Residence Halls



Expenses

THE EDUCATIONAL and general expense of operating the College is defrayed by payments from students, income from endowment funds, and gifts from alumni, friends, and corporations. The budget for 1960-61 provides for an expenditure of \$2396 per student, exclusive of scholarships and room and board. Of this amount, approximately \$1218 will be paid by the student in tuition and fees, and \$1178 must be provided from endowment income and gifts.

The College reserves the right to change any of the following fees at any time should conditions make it necessary.

General Fees

TUITION, including season tickets for Artist Course and Athletic Events	per semester	\$550.00
HEALTH FEE	per semester	17.50
ASSOCIATED STUDENT DUES	per semester	10.00
GRADUATION FEE		10.00

Residence Fees

ROOM AND BOARD	per semester	\$462.50
In Clark Hall a few rooms with fireplaces are available for men, for which the charge is \$485.50 per semester		
ROOM DEPOSIT, applicable on payment of bills for final semester of residence. (See pages 34, 39.)		50.00

Departmental Fees

LABORATORY FEES	Per Semester	\$ 2.00 to 10.00
LABORATORY BREAKAGE DEPOSITS		4.00 to 10.00

See Courses of Instruction.

APPLIED MUSIC FEES

For those paying regular tuition:

One-half hour private lesson per week	45.00
Each additional half-hour	40.00

For those carrying less than ten hours of college work, exclusive of work in applied music:

One-half hour private lesson per week	70.00
Each additional half-hour	50.00
Class instruction	25.00

PRACTICE FEES

Piano, one hour daily	6.00
Bridges Hall Organ (four manuals), one hour weekly	5.00

Two-manual Organ, one hour weekly	2.50
Bridges Auditorium Organ, Claremont College, (advanced students only) one hour weekly	15.00
Students in Music 1, 55, 107, 113, and 158 will be charged \$6.00 per semester for the use of a practice piano unless they are already paying one of the above practice fees.	

Fees for Special Privileges

LATE REGISTRATION (See page 84.)	\$2.00 to 10.00
CHANGE OF PROGRAM (See page 84.)	3.00
SPECIAL EXAMINATIONS	2.00
CAMPUS FEE FOR AUTOMOBILES (See page 64.)	5.00 to 10.00

Fees for Part-time Students

SPECIAL TUITION FOR STUDENTS CARRYING LESS THAN TEN UNITS OF WORK	per unit	\$55.00
AUDITOR'S FEE	per course	\$10.00

RESIDENCE FOR MEN

The College is equipped with residence and dining halls to accommodate its students. All the residence halls have both single and double rooms. It is expected that single men not actually living at home will room and dine in college halls. Admission is offered on this assumption unless an exception is made in the statement offering admission. Other exceptions to this regulation may be granted by the Dean of Men, but ordinarily only for medical reasons or for others of comparable importance. Students living at home or working for board or room may make special arrangements with the Dean of Men.

Residential campus privileges are provided only on the basis of an inclusive charge varying according to location of room and including board. The standard charge on the men's campus is \$462.50 per semester, but a few rooms with fireplaces are available at \$485.50. These charges include necessary furniture, rugs, bed linen and towels, the laundering of the same and the care of rooms. Linens will be changed and beds made in all halls once a week. On the remaining days men will make their own beds. The only articles to be furnished by the students are blankets, spreads for single beds, and study lamps.

The College has no housing for married students.

RESIDENCE FOR WOMEN

Women students are expected to room in residence halls and board at college dining rooms. Freshmen are normally assigned to Harwood Court or Anna May Wig Hall. Students living at home or

working for room or board may make special arrangements with the Dean of Women.

Harwood Court, Blaisdell Hall, Anna May Wig Hall, and the two Language Houses have both single and double rooms, as well as suites. Except for a few double rooms, single accommodations are provided in Mudd Hall. Each room is adequately furnished; the only articles to be provided by the student are linen, blankets, and spread for a single bed. Residential campus privileges are provided on the basis of an inclusive charge of \$462.50 per semester.

RESIDENCE REGULATIONS

The residence privilege does not include the use of rooms during vacation periods. The residence halls are open for new students the Friday before the opening of the college year and for returning students the day of registration. The residence and boarding privileges end 24 hours after the last examination at the end of each semester for all students except seniors and those asked by the college to remain through Commencement. The residence and dining halls are closed the day after Commencement.

Each student is required to make a deposit of \$50 for a room in the dormitory. This deposit is held by the College until the student's graduation or withdrawal from residence. Any outstanding charges for damage to college property will be deducted from this deposit, and any remainder will be refunded in the final semester of residence. For a student who withdraws from residence before graduation, the room deposit, less any damage charges, will be refunded provided he has been in residence for one semester or more and gives notice of withdrawal not less than sixty days before the opening of the term for which he is withdrawing.

The College reserves the right to dismiss from a residence hall without rebate of room rent and to withdraw dining hall privileges in the case of any student who becomes an undesirable occupant.

The College may dispose of any articles left by students for more than six months.

BILLS

All college bills are due each semester in advance and must be paid at the time of registration. Students wishing to pay by installments may do so by arrangement with the Bursar at the time of registration. At least one-quarter of the total bill for the semester must be

paid in advance. Even though the student has a scholarship grant, one-quarter of the remainder of the bill must be paid in cash at the time of registration. A service charge of from \$1.50 to \$3.00 per semester will be made for deferred payments, according to the number of installments.

It is expected that payment of installments will be made on or before due dates; failure to do so without the approval of the Bursar will result in an additional service charge. A student whose bills are still unpaid at the end of any semester may not register for the following semester until he has arranged for their payment with the Business Office.

No refunds are made to those leaving before the end of the semester except that in the case of those leaving before the middle of the semester because of illness one-half of the tuition and laboratory fees are refunded and in the case of those dropping out for good cause within a week of their registration all but \$25.00 is returned. No refund is made on a room payment unless the room is re-rented to someone not then rooming in a college residence hall.

Students with unpaid bills are not given honorable dismissal or graduated. Seniors must settle all college bills and library obligations by four p.m. of the fourth day preceding Commencement if they are to receive their diplomas with their class.

Scholarships and Student Aid

THE COLLEGE offers an extensive scholarship and student aid program and approximately \$250,000 from College funds will be available to Pomona students during 1960-61. These funds are derived from endowments, from individual and corporation gifts, and from the annual Alumni Fund. In addition, Pomona students are eligible for California State Scholarships of \$600 each, and 150 State Scholars were in residence during 1959-60.

Pomona College has adopted, with certain other West Coast colleges and universities, a joint policy aimed at achieving uniformity and equity in the distribution of scholarship funds to entering students. All these institutions make a distinction between 1) recognition of academic honor and achievement, and 2) recognition of need for financial assistance. Honors at Entrance are awarded solely in recognition of distinguished academic achievement. They are awarded without regard to need and carry no monetary grant.

Scholarship grants are awarded to students who achieve outstanding records and who need financial assistance to attend college. In making awards the Committee on Scholarships considers the candidate's promise in intellectual fields, his force of character and physical vigor, his probable interest in different aspects of the college community, and his leadership qualities. These factors determine the selection of those to receive scholarships, but the size of the stipend will be determined entirely in accordance with need, unless otherwise indicated. Normally, one-half the annual stipend is paid at the beginning of each semester.

If a scholarship holder's record is satisfactory and need continues, financial aid will be continued during the student's residence in college. Each scholarship holder's record is reviewed annually, with attention being given to the student's participation in and contribution to the college community as well as to his academic record. The amount of the stipend will be determined each year on the basis of the financial situation at that time. The college reserves the right to make some of the assistance in the form of loans during the junior and senior year.

Entering students, either freshmen or Junior College graduates, in need of assistance, should complete by March 1, 1961, an application

for admission, and should submit, also by March 1, on forms available from high school counselors, or from the Pomona College Scholarship Office if the schools do not have the forms, a financial statement to the College Scholarship Service. This service, established by the College Entrance Examination Board in 1954 on a nation-wide basis, collects from parents or guardians information relating to the financial resources of scholarship applicants, and sends copies to the colleges and universities to which applicants are applying for scholarship grants. Students transferring from other four-year colleges are not eligible to apply for financial assistance until they have completed a minimum of two semesters in residence at Pomona College.

Scholarships are also available to other matriculated students, and are awarded in open competition, using the same procedure as for freshmen. Applications for matriculated students should be filed in the office of the Dean of Men or the Dean of Women by May 1.

SCHOLARSHIPS AVAILABLE FOR 1960-61

Alumni Scholarships: Five or more scholarships will be awarded from the Alumni Scholarship Fund with stipends which may go as high as \$1100 annually according to financial need. These scholarships are awarded not only on the basis of the academic record but also on the all around contribution to the life of the secondary school and community, and the promise of such contribution in college and afterwards. Open to men or women students.

Alpha Gamma Sigma Scholarship: One award with maximum stipend of \$1100 is given by Pomona College to a junior college graduate who is recommended by Alpha Gamma Sigma.

Appreciative Parents Scholarship: A scholarship fund of \$15,000 has been established by the parents of a recent graduate in appreciation of the work of the college. The income from the fund is to be used to assist a worthy student who could not otherwise attend Pomona.

The Associated Men Students Scholarships: The Associated Men Students of Pomona College offer annually two awards of \$100 each. Each award is given to a man student at the end of his Junior year, one to the man who best exemplifies a combination of scholarship with leadership and proficiency in athletics, and the other to the man who best exemplifies a combination of scholarship with leadership and attainment in extracurricular activities.

The Donald Houghton Bacon Scholarship: The parents of Donald H. Bacon, who died at the college in 1948, have established in his memory a \$5000 scholarship fund, the income of which provides an annual award to a deserving student who prepared for college at the Tucson, Arizona, High School, and who is recommended by the Superintendent of Schools in Tucson.

George F. Baker Four-Year Scholarships: Pomona is one of several colleges to receive grants from the George F. Baker Trust of New York, for the purpose of awarding scholarships to outstanding young men. The plan of the Baker Trust is to seek out future leaders of American society and to make it financially possible for them to attend college. Scholarships will be awarded with stipends which may go as high as \$1250 annually, according to financial need. Open to men students only.

The Olivia D. Baker Scholarship: The Olivia D. Baker Scholarship has been established in memory of Mrs. Olivia Dennison Baker. The scholarship is open to students of a minority race with preference given to negro candidates. The amount of the award will be determined by the student's need, up to \$1200 annually. It is open either to men or women, to freshmen or transfer students.

The Llewellyn Bixby Memorial Scholarship: A scholarship of \$500 available annually to a man or woman who has completed the freshman year in Pomona College and who shows proficiency and genuine interest in science was endowed by Mrs. Llewellyn Bixby, '01, in memory of her husband.

The Henry G. Brainerd and Fannie Howard Brainerd Memorial Scholarships: A fund of \$25,084 provides income which is available for scholarships for men or women.

The Theodore S. Brown Scholarships: A fund of \$25,808 has been established by Mr. and Mrs. Theodore S. Brown, the income from which is available to students of good character who need financial help to remain in college.

The J. Carlyle Bryant Scholarship: Established by Mr. and Mrs. George W. Bryant in memory of their son, J. Carlyle Bryant, '45. Available to an outstanding, all-around man in any class at the college, who possesses qualities of character, scholarship, and athletic ability, and who is particularly interested in mathematics. The amount of the scholarship varies from \$500 to \$900, depending on the need of the recipient. If there should not be a properly qualified candidate in mathematics, the scholarship may be awarded to a student in one of the other physical sciences.

The Frank G. Butler Scholarships: A scholarship fund of \$80,903 has been established in memory of Frank G. Butler, the income from which is available to sophomores, juniors, or seniors who have achieved scholastic distinction.

The Winifred Smith Buxton Scholarship: Winifred Smith Buxton, a member of the class of 1899, has established a scholarship fund of \$9,345, the income from which is to be awarded annually to a worthy student at Pomona College.

The California Bank Scholarship: The California Bank has established a two-year scholarship at Pomona College to assist in his junior and senior years a deserving young man from Southern California who plans to follow a business career after graduation. The recipient will receive \$500 in his junior year and \$500 in his senior year toward the cost of tuition.

California Scholarship Federation Award: A scholarship with maximum stipend of \$1100 is given by Pomona College to a man or woman nominated by the California Scholarship Federation.

The Canfield Foundation Scholarships: The Canfield Foundation has made available \$4000 for scholarships for women students from Los Angeles County entering Pomona College in September, 1960. These scholarships will be continued through the full undergraduate course subject to the approval of the Scholarship Committee and the Foundation.

The Chevy Chase Scholarship: A scholarship of \$1000 for a man or woman of sophomore standing who has demonstrated personal and academic merit. Preference will be given to persons who are in need of financial aid because of exceptional family circumstances. Further preference will be given to Negro and foreign students who have personal and academic merit and financial need.

Chemistry Contest Scholarship: A scholarship with maximum stipend of \$1100 is offered by Pomona College to a winner in the annual High School Contest sponsored by the Southern California Section of the American Chemical Society. The recipient must be among the top fifteen contestants, and must satisfy all entrance requirements of the College.

The Claremont Church Scholarship: A scholarship of \$250 to be awarded each year to an upperclass student planning on life-time Christian service or to a senior about to enter seminary training. Choice is made in the spring by the Scholarship Committee upon nomination from the Department of Religion acting in consultation with the minister and a member of the World Service Committee of the Claremont Church.

College Scholarships: A fund of \$249,032 has been established over the years by friends of the College, the income from which is available for the assistance of worthy students.

The Kate Condit Memorial Scholarship: A scholarship of \$100, endowed by the late Mr. and Mrs. A. P. Condit, is awarded annually to an outstanding student in the Department of Music.

The Daniel William Cooper Scholastic Foundation: An award of \$100 open to a man or woman in any class.

Crown Zellerbach Foundation Scholarship: A scholarship of \$900 for the academic year 1960-61 will be given by the Crown Zellerbach Foundation to a junior or senior student majoring in the field of Economics. A grant is also made to the college budget to help defray the full cost of instruction.

Cyprus Mines Corporation Scholarship: An award of \$500, available for the academic year 1960-61, has been provided by Cyprus Mines Corporation.

The George Curtis De Garmo Scholarship: The late George Curtis De Garmo of Los Angeles has established a scholarship fund of \$17,406 at Pomona College, the income from which is available annually to a worthy student.

Thomas J. Dowling Scholarships: A fund of \$10,000 provides income which is available for awards to men and women.

The Richard P. Edmunds Memorial Fund provides a scholarship of full tuition for an upper division man student (preferably one who has attended Pomona during the first two years) nominated to the Scholarship Committee by the Professor of Physics.

The Malcolm Eversole Memorial Fund: A scholarship providing full tuition for a man in the Junior Class to be nominated to the Scholarship Committee by the President of the College at the end of the nominee's second year in Pomona College. The selection is based not on scholastic rank only but on the possession of those personal qualities which indicate a high degree of promise in a student of outstanding character.

Executives' Secretaries, Inc., Pomona Valley Chapter Scholarship: An award of \$1100 provided by the Pomona Valley Chapter of Executives' Secretaries, Inc., is available to a woman student at Pomona College who needs financial assistance in her college education. A student looking toward a business or professional career is preferred, but the selection of the recipient shall rest with the Scholarship Committee of Pomona College.

The William C. Free and Mazy Bell Free Scholarships: The late Mrs. William C. Free of Pasadena has established a trust fund from which an income of approximately \$8000 per year is available to Pomona College for the awarding of scholarships to students in any of the four classes. One of these scholarships is reserved for a student concentrating in music.

Graham Brothers Foundation: A scholarship covering full tuition will be available for the academic year 1960-61. A grant will also be made to the college budget to help defray the full cost of instruction.

Margaret Burton Harwood Scholarships: A fund of \$51,171 has been established, income from which is available for scholarship awards to men or women.

The Haynes Foundation Scholarships: A tuition scholarship of \$1100 and a tuition-subsistence scholarship of \$1600 have been established at Pomona College by the John Randolph Haynes and Dora Haynes Foundation to assist deserving senior students in the Social Sciences. The criteria of award include exceptional scholastic record, character, promise of professional growth, industry, and need. It is also desired that the candidates obtain some kind of internship experience in their chosen fields, or be required to write a special senior thesis. In addition to these awards, the Haynes Foundation has made a further grant of \$2700 which will be available to advanced students in the Social Sciences for 1960-61.

The A. L. Hobson Memorial Scholarship: A scholarship of \$670 open to a man student from Ventura County, California, who needs financial assistance to attend college. The recipient may be a member of any class at Pomona.

The Paul Mylrea Holden Scholarship: The late Mrs. Susie Mylrea Holden has established at Pomona College a scholarship fund of \$10,000 in memory of her son, the income from which is available annually to students who need financial help.

The Houchin Foundation Scholarship: A fund of \$5,269 has been established by the late Mr. C. E. Houchin of Bakersfield, income from which is available to junior or senior students who need financial aid to finish college.

The William J. Howard Memorial Scholarship Fund: Established by alumni and friends in memory of William J. Howard, '14. A scholarship of \$150 is awarded annually to a student for lessons in applied music.

The George Kenneth Irvin Memorial Scholarship: A scholarship of \$200 per year, established by the family of the late George Kenneth Irvin, is available to a man or woman student who needs financial assistance.

The James Irvine Scholarships: A scholarship fund of \$60,000 has been established by the James Irvine Foundation, the income from which will be used to assist both men and women students at Pomona College in paying their tuition, board, lodging, and other expenses incidental to their education at the College. These scholarships are limited to students residing in the State of California, preference to be given to those in Orange County.

Junior College Scholarship: An award with a maximum stipend of \$1200 is available to Junior College graduates.

The Kappa Delta Honor Scholarship: An annual scholarship of \$780, established in 1926 by alumni members of Kappa Delta Fraternity and administered under a special committee, is awarded at the beginning of his senior year to an outstanding all-around man, who shows qualities of character, intellect, leadership, sportsmanship, and proficiency in athletic pursuits. The recipient must have been in residence during all three lower years, and must rank in the highest third of all the men in his class.

The Clayton A. and Lottie Culler Langworthy Memorial Scholarships: A scholarship fund of \$25,957 has been established by the late Mrs. Clayton A. Langworthy, the income from which is to be used for the education of worthy young persons with ambition and ability who otherwise would have to forego an education.

Bertha Lebus Scholarship: A scholarship of \$940 endowed by Miss Bertha Lebus is available annually to a matriculated student attending the college. The recipient must be a person who shows a high degree of promise and who needs financial assistance.

Maria K. Lloyd Scholarship: This scholarship is available to an outstanding candidate who is now a resident and citizen of Greece or Turkey. The amount of the award will be determined by the student's need. It may cover as much as all college expenses for the full four years. Not to be awarded in 1960-61.

The John G. Locke Scholarship: A scholarship fund of \$5000 has been established by the late John G. Locke of La Jolla, income from which is to be available to a worthy student at Pomona College.

Lockheed Scholarships: The Lockheed Aircraft Corporation has established at Pomona a four-year scholarship for students concentrating in a subject applicable to a career in the aircraft manufacturing industry. Such fields of concentration may be either in the sciences or the social sciences. Lockheed Scholarships include full tuition and \$500 a year toward other college expenses, plus a grant to the college budget to help defray the full cost of instruction.

The Richard N. Loucks, Jr., Music Scholarship: A scholarship fund of \$15,000 has been established by Mr. Benjamin M. Stansbury, of La Canada, in honor of Richard N. Loucks, Jr., the composer of *Hail, Pomona, Hail*. The income is awarded annually to a student majoring in applied music.

The George H. Mayr Educational Foundation Scholarships: The George H. Mayr Educational Foundation has made available a scholarship fund of approximately \$7000 per year for the assistance of students from California who need financial aid to attend Pomona College.

The Amélie Augustine McAlister Scholarships: The late Mrs. Amélie McAlister Upshur of San Marino established at Pomona a fund of \$100,000, the income from which provides scholarships for women. McAlister Scholarships are available to women in any class who need financial assistance to attend college.

The McDaniel's Markets Scholarship: A scholarship of \$250, established by the McDaniel's Markets, is available to a senior in need of financial assistance to remain in college.

The Robert McFadden Memorial Scholarship: A scholarship of approximately \$960, available annually to a man student, has been established in memory of Robert McFadden, '37, who was killed in action in World War II.

The Elizabeth McIntyre Scholarship: A scholarship fund of \$28,571 has been established by the late Miss Elizabeth McIntyre, income from which is available for scholarships at Pomona College.

The Frank H. Merrill Memorial Scholarship: A four-year scholarship, to be awarded to a student whose interest is primarily in the field of science, includes full tuition of \$1100 plus as much as \$500 a year toward other college expenses. This scholarship has been established by Mr. Willis H. Merrill, '30, in memory of his father.

The Murray Minehart Music Scholarship: A fund of \$8,791 has been provided by the late Mr. Murray Minehart of Laguna Beach, the income from which is available to a student of voice.

The Mississippi Scholarship: An endowed scholarship, with income of approximately \$900 annually, has been established anonymously as a tribute to the donor's native state. Open to a man or woman in any class.

The Faxon More Memorial Scholarships: Two scholarships of \$900 each are available annually to men students of well rounded interests and promise of leadership. These scholarships were established by Mrs. Mary E. More of Goleta in memory of her son.

Music Scholarships: Ten awards of \$170 each, to cover the cost of lessons in applied music, will be available in 1960-61.

The Blair Nixon Memorial Award: An annual award of \$180 is made from a fund established by his parents and friends in memory of Blair Nixon, '33, to a senior varsity letter winner who exemplifies the high ideals of the college in scholarship and sportsmanship. The award is made on nomination of a special committee and is presented to a Pomona man at the beginning of his senior year.

The Arthur Noble and Frances W. Noble Scholarship: A scholarship of \$550, endowed by the late Mr. and Mrs. Arthur Noble, is available annually to a student in any class who needs financial assistance.

The Nu Alpha Phi Memorial Scholarship: A scholarship of \$845 endowed by the members of Nu Alpha Phi Fraternity is awarded annually to a man at the beginning of his junior year. Selection is made by a special committee on the basis of outstanding character and real financial need, the latter partially determined by records of student employment during the school year. Given in memory of the Fraternity's losses in World War II.

The Everett S. Olive Orchestral Scholarship: An annual scholarship of \$250 is awarded to a qualified student on the basis of musical ability on an orchestral instrument. It is endowed anonymously in tribute to Everett S. Olive, late Professor of Piano, whose interest has been an important factor in the development of the orchestra. It is normally given to a freshman. The scholarship is awarded on the joint recommendation of the Music Department and the Committee on Scholarships. An audition is normally required.

Orchestral Scholarship: An annual scholarship of \$250 is available to a qualified student who will continue study of his instrument in the Pomona College Music Department. Awarded on the basis of musical ability and orchestral competence. Will normally be given to a Freshman after audition by the Music Department.

The Walter H. Parsons and Hazen M. Parsons Memorial Scholarship: A scholarship of \$200 given in memory of Walter H. Parsons, '04, and Hazen M. Parsons, '09, is available annually to a man or woman in any class who needs financial assistance to attend college.

The Phi Beta Kappa Scholarship: A scholarship of \$200 endowed by the Pomona Chapter of Phi Beta Kappa is awarded at the beginning of the second semester to a senior who has been in residence for three years at Pomona and who is selected for the high quality of his scholarship and his promise of future distinction. The award is open to both men and women.

The Flora Sanborn Pitzer Memorial Scholarship: A scholarship of \$1100 from The Sanborn-Pitzer Foundation, established by Russell K. Pitzer of the class of 1900 in memory of his wife, is available to a woman student in the sophomore, junior, or senior class who has shown scholarship ability and who requires financial assistance to remain in college.

The POA Scholarships: The Pacific Outdoor Advertising Company offers a four-year scholarship to a well-rounded young man who is interested in a field of study leading to a career in teaching or business. The scholarship provides full tuition and fees for four years, and provides summer employment if desired. A grant is also made to the college budget to help defray the full cost of instruction. A new award will be made in 1962-63 and in 1963-64.

John W. Porter Trust Scholarship: A scholarship of \$500, available to a student from the Long Beach area, is provided annually by the John W. Porter Trust.

The Presser Foundation Scholarships: A fund of \$400 is given to the college annually by the Presser Foundation of Philadelphia, for the assistance of music students. Scholarships from this fund are awarded by the Music Department to students who are interested in music education or other advanced work in music.

The Physics Contest Scholarship: A scholarship with maximum stipend of \$1100 is offered by Pomona College to a winner in the annual High School Contest sponsored by the Southern California Section of the American Association of Physics Teachers. The recipient must be among the top fifteen contestants, and must satisfy all entrance requirements of the College.

The Clara S. Ratekin Scholarships: The late Mrs. Clara S. Ratekin of Covina has established a fund of \$483,661, the income from which is to be used to defray the educational expenses of worthy young men and women. These awards are open to students in any class.

The Mabel Wilson Richards Scholarships: The Mabel Wilson Richards Scholarship Fund of Los Angeles has made available scholarship assistance for worthy and needy women students from the metropolitan Los Angeles area.

The Charles Harvey Rodi Memorial Scholarship: A scholarship of \$1100 established by Mrs. Lucina Rodi Updegraff, is available annually to a man studying toward a career in medicine. The award is made on the basis of ability and need, and may be available to the same student for more than one year, at the discretion of the Committee on Scholarships.

The Alice M. Sanborn Scholarship: A scholarship of \$500 annually, endowed by the late Alice M. Sanborn, is available to a man selected by the Scholarship Committee as a representative student at the college. The candidate shall be selected at the beginning of his junior year, and shall receive the scholarship for both his junior and senior years, provided he remains worthy of continued assistance.

The Paul E. Schwab Scholarship: A scholarship of \$150 a year, to be awarded to a junior or senior of high scholastic attainment, good citizenship, and need for assistance, who is planning a career in law or science, has been established by Paul E. Schwab, '17.

The Shatto Memorial Scholarship: A scholarship of \$250 is provided annually from the income of the Walter O. Shatto and Clara R. Shatto Memorial Fund for a qualified upperclassman or graduate student majoring in the Department of Astronomy, the candidate to be selected on the joint recommendation of the department and the Scholarship Committee.

The James Shultz Scholarship: A fund of \$25,000, established by the late James Shultz of Fresno, provides income for scholarship awards to students in any class.

The Frank Wilson Stafford and Julian Tate Stafford Scholarship: A memorial scholarship of \$900 per year, available to a man studying toward a career in law or engineering, has been established by Mrs. Grace T. Stafford of Pasadena.

The Olivia Phelps Stokes Scholarships: A scholarship fund of \$47,000 provides income which is available to worthy students at Pomona College.

The Henry E. Storrs and Julia A. Storrs Scholarships: A fund of \$25,000 provides income for scholarship awards to men students.

The William W. Stout Scholarships: A fund of \$157,500 has been established from the estate of the late William W. Stout, the income from which is available for scholarship awards to worthy students in any class.

The Richard E. Strehle Memorial Scholarship: A scholarship of \$385 established in memory of Richard E. Strehle, '41, who was killed in action in the Philippines in World War II, is awarded annually to a junior or senior man with the physical, mental and moral qualities desirable in a field geologist. Choice is made near the end of the sophomore or junior year, on nomination by the Geology Department to the Scholarship Committee. The award may be withheld in any year, and additional awards may be made in years when extra income is available.

Andrew Acker Sugg Memorial Scholarship: A scholarship of \$1100 available annually to a junior or senior man who shows promise of outstanding work in the field of science has been established by Mrs. Andrew Acker Sugg in memory of her husband.

The Hannah Tempest Scholarships: Two scholarships of \$125 each are awarded annually to a man and a woman studying art, in accordance with conditions laid down by the donor, Mrs. Hannah Tempest Jenkins.

The Texaco Scholarships: Texaco, Inc., has established scholarships at Pomona College for men students preparing for a career in the petroleum indus-

try. Applicants must be United States citizens, must be in the upper third of their graduating classes, must show financial need, and must show evidence of good health and physical fitness. The scholarship covers tuition and the cost of books and fees, and in addition provides a grant to the college budget to help defray the full cost of instruction.

The Union Tribune Charities Scholarships: The Union Tribune Publishing Company of San Diego has established one scholarship of \$200 in each of the four classes. A student receiving one of these scholarships for one year may continue to be a candidate for them in another school year. Preference will be given to students interested in journalism who come from San Diego county, but scholarships are open to all students.

The Willard E. and Henrietta P. Thompson Endowment Fund of \$56,287, provides income from which one or more departments of the college may employ students for clerical or other work. Only those students who need financial assistance are eligible.

LOAN FUNDS

The college also administers loan funds by which it is possible to cooperate with the urgent need of students in making available to them amounts sufficient to cover tuition fees. Interest at the rate of 3% per annum begins on graduation or at the time of leaving the college. Applications for loans should be addressed to the Committee on Scholarships and Student Aid.

SPECIAL LOAN FUNDS

The Associated Women Students Loan Fund, administered by the Dean of Women at the request of the Associated Women Students, makes available for women students short term loans for personal emergencies. It is not normally used for loans to meet college bills. Interest at the rate of 4% begins after a period of two years.

The Associated Men Students Loan Fund, established in 1931, is available for loans in small amounts to meet personal emergencies or short-term personal needs of Pomona men. It is not intended to be used to pay college bills. For a special need a loan may be issued on a long-term basis. The interest rate is 4%. The fund is administered by the Dean of Men at the request of the Associated Men Students.

STUDENT EMPLOYMENT

The College endeavors to find employment for students needing to earn part of their expenses. Many are thus helping themselves by various forms of labor such as clerical work, baby sitting, janitor work, waiting on tables, general house work and gardening.

Applications for aid in securing employment should be addressed to the Director of Placement Service, Sumner Hall.

FELLOWSHIPS AND SCHOLARSHIPS FOR GRADUATE WORK

The following awards may be made for 1961-62 to graduating seniors if qualified applicants appear. Applications for these fellowships should be in the hands of the Committee on Scholarships by March 15, 1961 except in the case of the Harsh Fellowship, application for which should be made to the Claremont Graduate School.

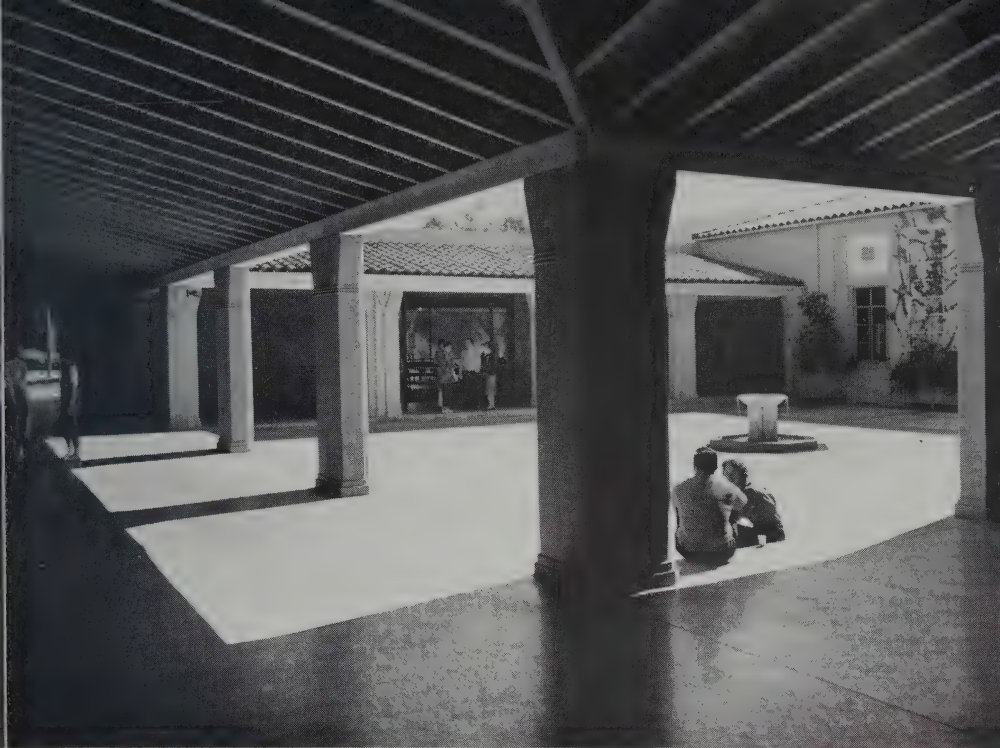
The Henry Martyn Bracken Foundation and the *Emily Robinson Bracken Foundation* provide two or more fellowships for graduate work in the Claremont Graduate School. When in any year a graduating senior does not qualify for the award, the stipend may be given to an undergraduate student in Pomona College.

The C. E. and Bertha M. Harsh Memorial Scholarship Fund in the Claremont Graduate School provides income for scholarship aid to Pomona College graduates. Although the Board of Fellows is empowered to make grants of the income for the assistance of any capable and promising graduates of Pomona College attending the Claremont Graduate School, it is the preference of the donors that first consideration should be given to those who are doing advanced work in the Fine Arts.

The William Lincoln Honnold Foundation provides a fellowship with a stipend determined by the committee of award according to individual circumstances. The award is open normally only to graduating Seniors who have done four full years of work in Pomona College, who are rated in the upper half of the graduating class on the basis of their performance during both the junior and senior years, and who wish to continue their studies either in the Claremont Graduate School or elsewhere in America or abroad.

The prime purpose of the fellowship is to promote original and creative achievement in the candidate's chosen field of activity rather than merely to reward faithful classroom work. Preference will be given to candidates preparing for scholarly rather than professional work. The selection will be based not on scholarship only but on the possession of those personal qualities which indicate a high degree of promise in a student of outstanding character. The plans for graduate work are to be made in consultation between the candidate and the Committee on Scholarships, the committee having final authority.

University of Chicago Law School Scholarship: A scholarship in the School of Law at the University of Chicago will be awarded by the Pomona College Committee on Scholarships. Stipend is normally \$720 and is renewable for two years if the student's record is satisfactory.



The Edmunds Union Serves as a Campus Social Center

The Students Operate Their Own FM Radio Station





Pomona-Claremont Voluntary Unit of the ROTC

Pomona Has a Varied Program of Intercollegiate and Intramural Sports



University of Chicago School of Business Honor Scholarship: A scholarship in the School of Business at the University of Chicago is available to a graduating senior on recommendation by the Committee on Scholarships. Stipend provides full tuition for one year and is renewable for a second year if satisfactory performance is maintained.

The Committee on Scholarships also nominates students of Pomona College who wish to apply for awards by other institutions and foundations.

CLAREMONT GRADUATE SCHOOL FELLOWSHIPS

In addition to the awards for graduating seniors offered through Pomona College, scholarships for graduate study leading to advanced degrees are available at the Claremont Graduate School.

General scholarships and fellowships ranging in value from \$700 to \$2,000 are awarded for graduate work in the field of the candidate's choice. Several endowed and special scholarships are also available. A few graduate assistantships with half tuition in the Claremont Graduate School are offered through the undergraduate colleges at Claremont and the Rancho Santa Ana Botanic Garden.

IBM RESEARCH ASSISTANTSHIPS IN THE WESTERN DATA PROCESSING CENTER

Pomona College is a participant in the Western Data Processing Center at the University of California at Los Angeles. Graduate students or prospective graduate students may apply for an IBM Research Assistantship, given through the Center, which consists of a half-time appointment on this campus for work in the general area of business data processing, high-speed digital computer applications or other pertinent fields. Consult Dr. Jack Miller, WDPC Representative on this campus, for further information.

Academic Distinctions

POMONA COLLEGE offers a number of academic distinctions, awards, and prizes to its students. These are given on the basis of academic excellence, and unlike the scholarships listed on pages 42 to 51, are awarded without reference to financial need.

POMONA COLLEGE SCHOLARS

Students who have achieved an academic average of 3.6 in any one year are elected Pomona College Scholars for that year. This is the highest academic award which the college confers on its students.

PHI BETA KAPPA

The Pomona Chapter of Phi Beta Kappa, established in 1914, is the Gamma of California. Upperclassmen "who are of good moral character, who are candidates for the degree of Bachelor of Arts, and who are distinguished for breadth of culture and excellence of scholarship" are eligible to membership in the Phi Beta Kappa Society.

PRIZES AND AWARDS

The following prizes and awards are available for general accomplishments and for proficiency in the work of the several departments:

The Rena Gurley Archibald High Scholarship Prize: A prize of \$50 to be awarded to that member of the graduating class taking the B.A. course and ranking highest in scholarship was established by the bequest of the late Reverend Andrew W. Archibald, D.D.

The Mary Ford Bacon Memorial Prizes: Three prizes of \$100 each for the best essays or monographs relating to the Constitution of the United States are awarded annually by the Departments of History, Government, and Economics. The three contests are conducted separately under special rules made by the faculty of each department. Entries are judged with due regard for effectiveness of style, originality of thought and depth of insight into the spirit and operation of the American constitutional system. The Mary Ford Bacon Memorial Fund also provides a sum of money for the purchase of books and other materials on the Constitution recommended by the faculty in history, government, and economics.

The Arvid Pierre Zetterberg Award: From a fund endowed by Mr. and Mrs. A. P. Zetterberg in memory of their son, Lt. Arvid Pierre Zetterberg, an

annual award of \$50 is made to the sophomore man who during his freshman year exemplifies the highest qualities of character, scholarship, and interest in manly sports. The award is made on nomination of the Scholarship Committee and is presented at the Opening Convocation in September.

ART

The Rembrandt Club Art Prizes: A number of prizes, totaling \$75, are awarded by the Rembrandt Club in the form of books for excellence in drawing, design, painting, sculpture and art history.

ASTRONOMY

The Moncrieff Astronomy Prizes: Prizes given to students in the first year course in Astronomy, taken regularly in class, whose interest in the study and proficiency in the observatory work are indicated by the best notebooks kept in accordance with the teacher's suggestion. Prizes totaling \$50 are endowed by Miss Flossie C. Moncrieff, '11.

BIOLOGY

The Vaile Prize: A prize of \$25 to be awarded to an outstanding student in Botany or Zoology was endowed by the late Mr. Charles S. Vaile.

CHEMISTRY

The Stanley D. Wilson Prize: A prize of \$50 endowed by Dr. Stanley D. Wilson is awarded annually to the student whose independent study in research shows greatest promise for creative work.

CHEMISTRY-GEOLOGY

The James A. Lyman Prize: A prize of \$100 awarded at the beginning of the college year to a senior student majoring in chemistry or geology who, in the opinion of the chemistry-geology faculty, shows special promise of achievement in research or teaching, or both. Established in memory of Dr. James A. Lyman, Professor of Chemistry 1909-1926, by his son, Dr. George P. Lyman, '26.

ECONOMICS

The Morris B. Pendleton Prizes: One or more prizes of \$100, made possible by the Morris B. Pendleton Fund, are awarded annually to economics seniors who have distinguished themselves for their work in the department.

EDUCATION

The Ada May Fitts Education Prize: A prize of \$50 endowed by Mr. Charles T. Fitts in memory of his wife, Ada May Fitts, is awarded annually to a student for excellence in courses in the Department of Education and for unusual promise in the educational field.

ENGLISH

The John Dye Award: From a fund established by Mr. and Mrs. John Thomas Dye in memory of their son, John Thomas Dye III, who was a Lieu-

tenant in the Army Air Corps, is offered an annual award of \$100 for the best piece of original writing to appear in a student publication. The award is announced at Commencement time.

The F. S. Jennings Memorial Prizes: Three prizes for men and three prizes for women of \$50, \$40, and \$30, respectively, for excellence in English are available each semester to members of the Freshman class taking English 1. In the award of these prizes attention is given to the interest shown by the student in improving the quality of his written and spoken English.

A prize of \$100 is available each year for a distinguished Senior Thesis written by a student concentrating in English Literature.

GOVERNMENT

The Edward M. Sait Prize: A prize of \$5 for the purchase of a book relating to American or comparative government, or for a membership in the American Political Science Association, is awarded to the student doing the best work in the basic course in government.

The Russell M. Story Prize: A prize of \$5 for the purchase of an appropriate book, or for a student membership in the American Society for Public Administration, is awarded to the student doing the best work in the course in public administration or in state and local government.

The George S. Burgess Prize: A prize of \$5 for the purchase of an appropriate book, or for a subscription to a selected law review is awarded to the student doing the best work in constitutional law and jurisprudence.

INTERNATIONAL RELATIONS

The Cordell Hull Prize: An award of \$50 is offered annually to the student who submits to the committee on International Relations the best essay on a problem relating to the United Nations. Subjects must be cleared with the secretary of the committee on or before April 1, and the essays, between 2500 and 3000 words in length, must be submitted in triplicate on or before May 1. In case no one essay is of outstanding merit, the committee reserves the right either to divide the honors or to make no award.

LATIN

The Mudge Latin Prizes: First and second prizes of \$10 and \$5, respectively, for excellence in Latin are endowed by friends of the College.

LIBRARY

The Eda May Haskell Library Prize: A prize of at least \$15 in the form of a purchase order for books is offered for the best library submitted by a senior student, not necessarily for the largest or most expensive collection but for the most intelligently selected books in one or more fields of the student's interest.

MATHEMATICS

The Llewellyn Bixby Mathematics Prize: A prize of \$25 for excellence in Analytic Geometry and Calculus is open to all students completing both Mathematics 1 or 52 and 65.

The Jaeger Mathematics Prize: A prize of \$25 to be awarded annually to a freshman in a beginning mathematics course is endowed by Chester G. and Elfrieda A. Jaeger.

MUSIC

The Barbara Sanford Allen Prize: An annual competitive prize of \$50 to be awarded to a student in the department of music, above freshman rank. This award is made possible by the husband and parents of a graduate of the Class of 1915 of Pomona College.

PHYSICS

The Tileston Physics Prizes: Two prizes have been established in memory of Professor Roland R. Tileston by former students and by members of his family: a prize of \$10 to the outstanding freshman or sophomore student in the Physics 1 course; a prize of \$50 to the junior student in physics whose record in the course and department work is judged most promising.

PUBLIC SPEAKING

The Kinney Prizes: Awarded to the three students who, in their first year of inter-collegiate competition in Oral Interpretation, make the most distinguished records of contest success. First, second, and third prizes of \$25, \$20, and \$15, respectively, will be awarded by the college chapter of Delta Sigma Rho, on recommendation of the Director of Forensics. The prizes were endowed by the late Mrs. H. N. Kinney.

The Dole Debate Prizes: Awarded to the two lower-division debate teams who, in the opinion of the Director of Forensics, have shown the greatest promise in inter-collegiate competition during the year. First and second prizes of \$30 and \$20, respectively, will be awarded. The prizes, established by the late Mr. John H. Dole in memory of his brother, Mr. William B. Dole, were endowed by Mr. Arthur M. Dole, '96.

The Stella King Prizes: Awarded, in the form of initiation fees and keys, to those who have demonstrated outstanding and versatile performance in debate and individual speaking events to warrant their election to the national honorary forensic fraternity, Delta Sigma Rho. Juniors and Seniors who have been active for at least one year in inter-collegiate forensics are eligible for election to Delta Sigma Rho, and therefore, for the King Prizes. These prizes were endowed by the late S. H. Wheeler, in memory of Miss Stella King.

RELIGION

The Hager Prize: A prize of \$25 for the best essay on a foreign missionary subject, open to all students, was endowed by the late Mr. and Mrs. C. R. Hager.

General Information

LIBRARY

POMONA COLLEGE shares with the other Associated Colleges the facilities of the central Honnold Library, which houses approximately 270,000 bound volumes, 216,000 bound and unbound government documents, 33,000 volumes in microtext, and several collections of rare books and pamphlets. Total Pomona holdings in the Honnold Building and in branch and departmental collections number 160,000 volumes and also include approximately 16,000 art prints, slides and photographs, 3,000 sound recordings and 5,000 maps, including the depository collection of publications of the United States Government and the State of California, and the publications of the United Nations.

The Honnold Library currently receives 2200 periodicals and 60 newspapers, and maintains bound files of over 1500, many of which are complete. Especially valuable are the holdings in the fields of art, history, literature and science.

The following Pomona College special collections are a part of the general library administered by the Honnold Staff: the Cook-Baker Biological Library and the Parish Botany Library in Crookshank Hall, and the Rancho Santa Ana Botanic Garden Building; the James A. Lyman Memorial Library of Chemistry in Mason Hall; the Mathematics, Physics, and Astronomy Library in the new Robert A. Millikan Laboratory; and the Geology and Zoology Libraries in the new Seaver Laboratory. Special Pomona Collections housed in the Honnold Building are the Mason California, the Wagner North Pacific, the McCormick Korean Libraries, and the Carnegie and Viola Minor Westergaard Art Collections.

In addition to the Pomona College Library, the Honnold Library also houses the libraries of the Claremont Graduate School, Claremont Men's College, Harvey Mudd College, and a part of the library of Scripps College. The main Scripps College Library is housed in the Ella Strong Denison Library on the Scripps campus.

PUBLICATIONS

The stated publications of the College are issued as numbers of the *Pomona College Bulletin*, which is published monthly except July

and August. These include: the *Annual Catalog*, the *Report of the President*, and the *News Letter* for Alumni.

LECTURE FOUNDATIONS

The Joseph H. Johnson Foundation, endowed by Miss Ellen B. Scripps, provides an annual income for the purpose of bringing distinguished lecturers to Pomona for a protracted stay and intimate participation in college life.

The Clark Foundation, established by Mr. Arthur O. Clark, makes it possible for the College to offer each year a lecture or course of lectures in the general field of religion.

The Henry D. Porter Foundation, named in honor of the late Rev. Henry D. Porter, for many years a missionary in China, provides for a lecture by some prominent worker in the field of Christian Missions.

PUBLIC ASSEMBLIES

A general assembly of the college is held each Tuesday at 11 a.m. for the purpose of hearing visiting lecturers or members of the faculty discuss topics of interest to the whole institution. This assembly period is also used for student body and class meetings.

On five stated occasions during the year, including the opening of each semester, a College Convocation is held. Full attendance of both faculty and students is expected at these exercises.

RELIGIOUS ACTIVITIES

The five Associated Colleges at Claremont unite in a College Church which holds its services each Sunday morning at eleven o'clock in Bridges Hall of Music. The Church is the coordinating force for religious activities among the colleges. Students participate in the services and there is a special student choir.

The Pomona College Chapel, which is altogether a service of worship, is held every Thursday morning from 11:00 to 11:25 in Bridges Hall of Music. Both students and faculty participate in the service, at which attendance is voluntary.

Various expressions of religious interest and forms of religious activity exist on the Pomona campus: worship, study and discussion groups, campus and community programs of service, and contacts with intercollegiate enterprises. These interests and their sponsoring organizations are centered in the College Church as a campus-wide agency to encourage interest in religion and to develop religious ac-

tivities. The College Church maintains relationships with the national Student Christian Movement and the World Student Christian Federation.

MUSIC

The College cooperates with Scripps College, Claremont Men's College, Harvey Mudd College, and the Claremont Graduate School in the presentation in Bridges Auditorium of the most distinguished masters in the field of music. Regularly included in the series is the Los Angeles Philharmonic Orchestra.

For the concerts thus afforded an annual ticket is furnished without extra charge to each full-time student.

Under the auspices of the Pomona College Department of Music, public recitals by individual students and members of the faculty and by groups are given frequently throughout the year.

The Pomona College Symphony Orchestra, the Choir, the Men's and Women's Glee Clubs, the Band, and chamber music groups, afford opportunity for the study and public performance of the finest in ensemble music.

CAMPUS ORGANIZATIONS

The Associated Students: This association, whose officers are elected by the student body, coordinates all student activities. It is headed by an Executive Board, composed of the President of the Associated Students and five elected Commissioners: Social Affairs, Financial Affairs, Educational Policy, Athletic Affairs, and Communication. The men and women students each have separate organizations to promote their respective interests, and each of the four classes is organized for class social life.

Honor Societies: Ghosts, for men; Mortar Board, for women.

Honorary Fraternities: Gamma Chapter of Alpha Kappa Delta, sociology fraternity; California Alpha Chapter of Kappa Mu Epsilon, national honorary mathematical fraternity; Delta Sigma Rho, national honorary forensic fraternity; Delta Phi Alpha, local chapter of the national honorary German society.

Local Social Fraternities: From the early days of the college, Pomona has sponsored a system of local fraternities. Currently there are six such fraternities on the campus: Alpha Gamma Sigma, Kappa Delta, Kappa Theta Epsilon, Nu Alpha Phi, Phi Delta, and Sigma

Tau. The college provides a club room for each fraternity in the residence halls on the men's campus. Fraternity members live in the residence halls and take their meals in the college dining halls. The fraternities pledge new members during the sophomore year. Of those eligible, approximately 60% join fraternities. There are no sororities.

Departmental Organizations: El Circulo Español, Le Cercle Français, Deutscher Verein, American Chemical Society, Caducean Society, Economics Club, Classics Club, International Relations Colloquium.

Dramatic Organizations: Drama Productions, Masquers and Thespians, in dramatics; Orchesis, in dancing.

KSPC: A 1000 watt FM radio station owned and operated by Pomona students, covering the entire Los Angeles basin, provides radio experience for interested students.

Other Organizations: World Affairs Board of the Associated Colleges, Cosmopolitan Club, Camera Club, Ski Club, Women's Recreational Association.

STUDENT PUBLICATIONS

The Student Life, the weekly newspaper, which was established in 1889, is the oldest college newspaper in Southern California.

Other student publications are: the *Metate*, the yearbook, and *Poor Cecil's Almanack*, a handbook, which contains material designed especially for new students.

FACULTY-STUDENT COMMITTEES

Pomona College assumes that most of the matters which affect the College are of concern to both faculty and students and believes that the experience and the judgment of both should be taken into account in the management of much of the college life. For this reason a large number of the policy forming committees of the college have both faculty and students as voting members. These committees now include the following: Admissions, Athletic Council, Interim Committee, Personnel, Public Events, Religious Activities, and Vocational Counseling and Placement.

CONDUCT

Pomona College assumes that its students, having voluntarily enrolled, are in sympathy with its purposes and philosophy, and will abide by its accepted practices. This basic philosophy is that all members of the college community will govern their conduct by standards of good taste and ethical judgment, and will exercise their responsibility as members of the community when these standards are disregarded by others. Any behavior on or off the campus which may bring discredit to the individual or to the College may result in disciplinary action.

The use or possession of alcoholic liquors of any kind on the campus is prohibited by the college.

Students are held responsible for the AMS and AWS residence rules.

The faculty has placed the interpretation and execution of these policies in the hands of the Committee on Student Affairs, which consists of the deans and certain faculty members appointed by the President.

The Student Affairs Committee joins with eight students elected by the student body to form the Interim Committee. Since 1959 the Interim Committee has been delegated the responsibility for dealing with inter-class rivalry and class shows, and for the administration of discipline, except for cases involving fraternities and infringements of academic honesty and honor. The Interim Committee also makes general policy concerning social affairs of students on the campus.

The Judiciary Councils of the Associated Women Students and the Associated Men Students administer regulations concerning conduct in the residence halls on their respective campuses, and, acting together as a joint body, carry out the policies of the Interim Committee and act as a court or advisory body in matters of discipline, except in those considered by the deans to involve serious problems of personality adjustment. The Judiciary Councils are empowered by the Interim Committee to take disciplinary action up to and including expulsion in cases of misconduct. Any member of the Judiciary or any defendant in a judiciary case may appeal any judiciary decision to the Interim Committee. Any judicial action resulting in expulsion must be reviewed by the Interim Committee.

Individual or collective student enterprises which use the college name and involve the absence of the participants from the college must receive the official sanction of the Committee on Student Affairs.

The College reserves the right to require the withdrawal of any student whose conduct is considered by the Student Affairs Committee to be detrimental to the best interests of the college.

AUTOMOBILES AND MOTORCYCLES

Rules governing student use of motor vehicles are determined and administered by the Associated Colleges. Students maintaining motor vehicles in Claremont are subject to the following regulations:

Registration and liability: Ownership of the car, together with its license number, must be registered with the Campus Police during college registration at the opening of each semester or within three days after the car is driven in Claremont. The student is responsible for displaying on the windshield of his automobile the Associated Colleges sticker affixed at the time of registering the car. At that time the student must also furnish evidence of having liability insurance. For temporary use of two weeks or less the student is obligated to secure a temporary permit from the Campus Police Department within three days after the car is driven in Claremont, or he will be subject to penalty. In this instance no fee is charged.

A student's car is assigned to a particular campus parking lot at the time of registration, and it may not be parked without penalty on public or private streets in the campus area or other parking lots of the colleges from 2:00 a.m. to 5:00 p.m. Likewise the student residing off campus may use only the parking lot to which his car is assigned. Campus curb parking is reserved for visitors and maintenance vehicles during the day.

The student receives when registering the vehicle a booklet of information and regulations for which he is responsible. A driver must at all times, both on and off the campus, exercise particular care and consideration for the safety of himself and others, and must acquaint himself with the state and local traffic laws and comply with their observance.

No campus resident student may use or park a motorcycle, motor bicycle, or motor scooter anywhere on the campuses, grounds or streets of the Associated Colleges. A student may drive or keep a

motorcycle outside of college limits provided he does not bring it on any part of the campuses.

An off-campus resident who needs a motorcycle or a motor scooter for commuting purposes may secure a special permit and driving instructions from the Campus Police Department. This permit is solely for commuting to the campus, not for driving about the campuses or college streets. The fee for motorcycle, motor scooter, and motor bicycle registration is the same as for an off-campus student's car permit.

Failure to comply with the regulations stated above and in the booklet of information issued to the student when he registers his vehicle shall constitute an offense against the college. The penalty for violation of motor vehicle regulations of the Associated Colleges may include fines, temporary sequestration and storage of the vehicle at the student's risk and expense, loss of campus driving privileges, or suspension from college. Regulations are systematically enforced.

A heavy fine is assessed for failure to register a motor vehicle within the time limit stated above or for failure to display the authorized registration sticker on the windshield.

Vehicle Registration Fees: A campus-resident student who keeps a car on campus will be charged a fee of \$10 a semester. A student residing off campus and using a motor vehicle on campus will be charged a fee of \$5 a semester.

The Campus Police Department is in the Buildings and Grounds area, at the south end of the college campus on First Street.

HEALTH SERVICE

Medical care and supervision are provided by the Associated Colleges Health Service. The medical advice of the college physicians is ordinarily available to all students, subject to certain conditions of hours and location of residence. Minor ailments are treated at the Baxter Medical Building or at Memorial Infirmary, which is used for cases requiring nursing and certain types of hospital care. Medicines and surgical dressings are at the expense of the ill or injured as is also medical service in chronic or prolonged illness or in case of accident, or an acute illness beyond ordinary first-aid emergency treatment.

The student is entitled to two days each semester at the College

infirmary without charge for room and meals. If illness requires hospitalization for additional days, the charge is \$7.50 per day.

The College does not assume responsibility for the complete medical care of its students, but only insofar as its present facilities will afford. Preventive medicine and campus health functions are stressed in the college medical program.

Arrangements have been made with the Continental Casualty Company by which students of the Associated Colleges may purchase group health and accident insurance at special rates, and it advises students to avail themselves of this opportunity. Detailed information about this insurance is usually mailed to each student during the month of August. Information is also available from the office of the College Physician.

MEDICAL REQUIREMENTS

The medical certificate required of all applicants prior to admission includes a certificate of recent successful smallpox vaccination and a certificate of a satisfactory tuberculin test, or an X-ray of the chest, performed within the preceding six months.

Every student on entering college is given a physical examination under the direction of the College Physician. All new students entering in the fall semester are required to complete the examination during New Student Days or by November 1, and those entering in February are required to complete it by March 1. Failure to meet this requirement within the announced time limits will result in the temporary withdrawal of the student's privileges of registration and class attendance until the requirement is met.

Each academic year a student is in residence he is required to complete a tuberculin skin test or a chest X-ray by November 1. During the registration period skin tests will be given by the health service staff to previously negative reactors. All positive reactors must be X-rayed yearly. Failure to meet this requirement will result in the suspension of privileges of registration and class attendance until the requirement has been met.

ATHLETICS

Pomona College conducts a program of intercollegiate athletics as a member of the Southern California Intercollegiate Athletic Conference and the NCAA. Our teams, known as the "Sagehens," compete in football, basketball, track and field, baseball, cross country, water-

polo, swimming, wrestling, golf, and tennis. Varsity and Freshman teams are maintained in all sports except golf and wrestling, which are represented by a Varsity team only.

A joint program of sports clubs is conducted with other members of the Associated Colleges in such activities as soccer, rugby, sailing, and skiing. Schedules are arranged for these club teams with other nearby clubs and colleges, but not exclusively within the Southern California Intercollegiate Athletic Conference.

In addition to the program of intercollegiate sports and the joint program of club teams, Pomona College maintains an extensive program of intra-mural sports open to all men students.

The direction and financial management of athletics rest with the Director of Athletics. There is a faculty Committee on Athletics, and the Director is advised by the Athletic Council, which is composed of three members of the faculty, three members of the student body, and two members of the Alumni Council.

The college endeavors to safeguard students in the use of its physical education facilities, athletic fields, and gymnasiums, and to this end the department has established regulations concerning the use of such facilities, but it is clearly understood that students who use the same do so entirely at their own risk.

ASSOCIATED COLLEGES COUNSELING CENTER

The Associated Colleges maintain a Psychological Counseling Center under the direction of a Clinical Psychologist. The Director of the Center works in conjunction with the college physicians and the college psychiatrist. The Center offers instruction in reading and in study techniques, vocational testing, and consultation and counseling on personal and emotional problems. Most of the services are open to Pomona students without charge, including one consultation with the psychiatrist. The cost of any additional consultations with the psychiatrist must be met by the student, and a nominal fee may be charged for extensive counseling from the psychologist.

VOCATIONAL COUNSELING AND PLACEMENT

Through faculty advisers and the personnel services of the college, students receive assistance in their choice of a career. The college maintains a vocational placement service for the benefit of alumni and students. Many alumni cooperate with the Director of the Placement Service in assisting seniors and graduates to find employ-

ment and to provide reliable occupational information concerning representative business organizations, government agencies, the professions, and other opportunities for employment.

Each year conferences on careers for men and women are held on campus under the sponsorship of the academic departments and the faculty and student committees on vocational services.

STUDENT EXCHANGE PROGRAM WITH FISK UNIVERSITY

Under arrangements which are made each year, two or three Pomona students of junior standing are selected from interested applicants to spend a semester at Fisk University, Nashville, Tennessee. The program operates on an exchange basis, and an equal number of Fisk students come to Pomona for a semester's experience. Interested Pomona students should make application to the Fisk Exchange Committee at a time which will be announced by the Chairman of the Committee.

GRADUATE WORK IN THE CLAREMONT GRADUATE SCHOOL

Graduate work leading to the Master of Arts degree is offered in several fields including art education, art history, Asian studies, botany, economics, education, English and American literature, geology, government, history, mathematics, music, music education, psychology, business and public affairs (business economics, government administration, international relations). The Master of Fine Arts degree is given on a two-year program in applied art combined with art history.

The Doctor of Philosophy degree may be taken in botany, economics, government, education, English and American literature, history, and psychology.

The Claremont Graduate School is authorized to recommend candidates to the California State Department of Education for the following public school teaching credentials: general elementary, general secondary, junior college and special secondary for art. Work also is offered leading to administrative credentials and to the pupil personnel services credential.

The annual bulletin may be obtained from the Admissions Secretary, Harper Hall, Claremont, California.

INTERCOLLEGIATE PROGRAM

Under a grant from the Fund for the Advancement of Education of the Ford Foundation, the Associated Colleges at Claremont are co-operating with Occidental College, the University of Redlands and Whittier College in the Intercollegiate Program of Graduate Studies designed to prepare college teachers of comparative literature, English and American literature, economics and government, and history. Those interested in this program should consult the Dean of the Claremont Graduate School.

GRADUATE RECORD EXAMINATION

Many graduate or professional schools require or request that applicants for admission, as well as for fellowships and scholarships, take the Graduate Record Examination administered by Educational Testing Services, the national academic testing organization. Students who wish to receive information concerning the dates on which the examination is given are advised to write early in their senior year directly to the Educational Testing Service, 4640 Hollywood Blvd., Los Angeles 27, Calif.

SUMMER SESSION

The Claremont Summer Session is sponsored jointly by Pomona College, Scripps College, Claremont Men's College, Harvey Mudd College, and the Claremont Graduate School. It is organized in a term of six to eight weeks, and offers a full program of undergraduate and graduate courses. A bulletin describing summer work is published annually in February and copies may be obtained from the Summer Session Office, Harper Hall, Claremont, California.

Professional Preparation

ALTHOUGH THE liberal arts program at Pomona aims at a broad and fundamental education rather than specialized vocational training, the regular work of the college prepares students for direct entry into many vocations, as well as for specialized work in graduate and professional schools.

National corporations each year employ thousands of college graduates and train them for executive positions. Though such seniors have often majored in economics, government, or science, many employers consider the field of study less important than character, maturity, and intellectual ability demonstrated by successful college work. Many women with a Pomona degree go directly into responsible positions in business and the professions.

Positions as industrial chemists, physicists, and geologists, as well as Federal and State Civil Service positions, are available to Pomona graduates without further study. Majors in mathematics are in demand by both business and industry. English majors may go into advertising, public relations, journalism, or publishing. Graduates in botany often find positions with the Forest Service or the National Park Service. In many counties of California, sociology majors can go directly into social work with the B.A. degree. Graduates who have concentrated in the social sciences are eligible to take competitive examinations for a variety of civil service positions, such as Junior Management Assistant, and other federal or state offices. Pomona graduates interested in careers in the Foreign Service are eligible to take the examinations given by the State Department, which is at present conducting a recruitment program.

More than half of Pomona's graduates go on to professional schools. Most departments of the college prepare students for advanced work in graduate school. Some of the opportunities for preparation for professional study are listed below.

AGRICULTURE, FORESTRY AND LANDSCAPE ARCHITECTURE

A strong program in the natural sciences is the best preparation for agriculture or forestry and, coupled with an equivalent program in art, for landscape architecture. Courses which prepare for ad-

vanced study in these fields are available at Pomona College. A complete list of recommended courses in all three may be obtained from the Department of Botany.

Ordinarily preparation in agriculture, forestry, or landscape architecture involves a full four-year course of background material together with a broad general education. This is followed by a year in a graduate or technical school bridging the gap between pure science and its application. Such a program prepares for leadership in the field, rather than a minor position involving only a special application of a segment of the subject. It is designed to develop adaptability to many situations rather than specific preparation for a few.

BUSINESS

Recent evidence reveals that the tendency for business executives to come from the social sciences, particularly economics, is growing. Modern management needs to know much besides the particular facts and skills associated with an individual business. A thorough understanding of the economic system and business-government relations, along with the power to communicate accurately and convincingly, is more and more becoming a prerequisite to business success.

Students at Pomona College, planning a career in business, will find a rich offering of courses, including accounting, statistics, money and banking, labor economics, national income, economic theory and business policy, industrial organization and public policy, management accounting, public finance, comparative economic systems, consumer economics, and international trade and finance. During the senior year, the student may take honors work or supervised study under the direction of a staff member. The program is ideal for the student who plans to attend a graduate school of business, to pursue an advanced degree in economics, or to enter one of the special business training programs for college graduates.

ECONOMICS—ENGINEERING

This curriculum combines a broad and strong training in the physical sciences with an integrated program of economic and business principles. The student who follows this curriculum will be better prepared to accept with understanding the responsibilities of leader-

ship in modern engineering organization. The course work may be organized to prepare the student for graduate work in Industrial Management or Business Administration.

The lower division requirements are: Mathematics 1 and 65 (12 units), or Mathematics 50 (6 units); Economics 51, 52, 71 and 72 (14 units); and Physics 51 and 52 (8 units), or Chemistry 1 (8 units).

The concentration requirement may be satisfied by taking a minimum of 30 units of upper division work in the four cooperating departments by completing a minimum of six upper division units in Mathematics, Economics, and Chemistry or Physics, with a minimum of 12 units in at least one of these fields.

Each student's program will be planned in accordance with his background and interest. A faculty adviser will advise him which courses in each department can be counted toward the minimum requirements.

ENGINEERING

Students at Pomona College who plan to enter a professional engineering school have an opportunity to obtain an excellent foundation in mathematics and physical science in addition to a well-balanced liberal training. Such students should consult with members of the staff in physical science who are acquainted with engineering school requirements. The special program, described below, has been established, but Pomona graduates are prepared to enter other engineering schools as well.

COMBINED PLAN

CALIFORNIA INSTITUTE OF TECHNOLOGY

Along with several other liberal arts colleges, Pomona has an arrangement with the California Institute of Technology whereby qualified students may receive the Bachelor of Arts degree from Pomona and a Bachelor of Science degree from the California Institute of Technology after a combined five-year program, of which the first three years are taken at Pomona. Without the combined plan at least six years would usually be required to complete the work for both degrees. Students under the combined plan will be accepted at the California Institute of Technology without examination if recommended by Pomona.

In satisfying the Lower Division Distribution Requirement of

Pomona College, the humanities requirements of the institute should be carefully considered in consultation with the adviser. In addition, the following Lower Division courses should normally be completed.

Physics 51 and 52

Mathematics 1 and 65, or 50

Engineering Drawing 7a, b

Engineering Drawing 40a, b

Chemistry 1 or 51

Satisfaction of the Pomona College concentration requirement in pre-engineering for those students who transfer at the end of the junior year shall include at least 24 Upper Division units selected from the following courses in consultation with the Faculty adviser. Starred courses shall normally be included.

Mathematics 125*

Mathematics 150*

Mathematics 151a*, 151b

Physics 141a*, 141b

Physics 142a*, 142b

Physics 151a*, 151b

Physics 101

Physics 185

Students planning combined programs in fields such as chemical engineering will approximate the above requirements on a unit basis but with substitution of more suitable courses where deemed advisable after consultation with the Faculty adviser.

Those students concentrating in pre-engineering and who plan to graduate after four years at Pomona College shall complete 36 units in Upper Division courses selected from the above list and from the additional list below:

Mathematics 118

Mathematics 119

Physics 186

Physics 196

Engineering Drawing (up to
4 units in courses numbered
over 100)

LAW

Adequate preparation for the study and practice of law requires the completion of an undergraduate program in the liberal arts leading to the baccalaureate degree. The best law schools do not require any particular undergraduate concentration; they are interested in breadth of background and quality of work. Lawyers and law schools agree that the ability to write and speak with clarity and precision is of paramount importance. A broad foundation in government, economics, and history is essential; accordingly if the student concentrates in one of these, he should be sure to supple-

ment his choice with courses in the other fields. A year of accounting is strongly recommended. Those interested may consult with a member of the Pre-law Committee.

PRE-MEDICAL AND ALLIED FIELDS

Admission to medical school is not dependent on any particular undergraduate concentration program, nor is it guaranteed by graduation from Pomona College. Professional schools set their own standards and admission requirements, but they usually recommend a sound liberal arts education, including certain basic courses in science.

The Pre-Medical Committee of Pomona College, in cooperation with the academic advisers, helps the student plan a program which ensures adequate preparation for the study of medicine and dentistry. The Committee also advises students preparing for the allied fields of medical technology, nursing, physical and occupational therapy, and hospital administration, and assists students in choosing and making application for the professional schools. All students who intend to apply to such professional schools should register themselves with the Pre-Medical Committee as soon as possible after entering college.

Prospective applicants for admission to medical school should study, preferably in high school, the publication "Admission Requirements of American Medical Colleges Including Canada," published by the Association of American Medical Colleges, 2530 Ridge Avenue, Evanston, Illinois. Adequate undergraduate preparation for related fields is described under the Zoology offerings in this catalog.

THE MINISTRY

Students planning to prepare themselves for Seminary or Graduate School training, with a view to entering the parish ministry or college teaching in religion, can most profitably fulfill their requirements for concentration in one of the following departments: English, History, Philosophy, Psychology, Religion, or Sociology.

Students planning to prepare themselves for Seminary or Divinity School training with a view to entering the field of religious education are advised to concentrate in Religion in their undergraduate studies.

PSYCHOLOGY

Recent surveys indicate an acute shortage of well-trained professional psychologists in clinical, counseling, educational and industrial areas. There is also a growing demand for experimental psychologists to fulfill important research functions in the Armed Services, U. S. Public Health Service, and various local agencies. Social psychologists and experimental psychologists are needed for research in advertising and industrial settings. Women in particular are sought for careers in nursery school and child development.

An undergraduate concentration in psychology at Pomona provides a broad general background which is not only necessary for graduate training in psychology, but also is appropriate to later work in elementary education, social work, psychiatric nursing, and understanding human behavior in social, industrial, and home situations.

PUBLIC SCHOOL TEACHING AND ADMINISTRATION

The problems faced by the public school teacher and the school administrator demand a broad background in liberal education, as well as the specialized knowledge gained through professional courses in education. While Pomona College does not itself recommend candidates to the State Department of Education for credentials, it does afford an excellent foundation in education leading towards later certification by a graduate school.

California requires students who wish a *secondary* credential to complete a bachelor's degree and one year of graduate work. This program must include a teaching major of 36 units and a teaching minor of 20 units in fields commonly taught in the high schools of the state. The two fields must be selected from the following: social studies, life sciences, physical sciences, English, speech, language arts, foreign language, mathematics, health education, agriculture, art, business education, home-making, industrial arts, librarianship, music, physical education, and conservation education. Students majoring in areas not listed must present two teaching minors from among the listed fields. Most prospective secondary school teachers will concentrate at Pomona College in the area or areas they expect to teach. (However, not all of the above areas are represented in the Pomona curriculum.)

The minimum state requirement for the *elementary* or the *kindergarten-primary* credential is a four-year baccalaureate course, includ-

ing certain specified work in professional education, but no specific subject major or minor is required. However, several California colleges and universities, of which Pomona College is one, believe that the soundest, most effective preparation for elementary school teaching involves definite concentration in fields allied to the elementary school program (e.g. English, social science, music, art, life science, mathematics, physical education, educational and child psychology). Also, in line with widespread policy in other California institutions, Pomona College feels that a graduate program of professional study is as desirable for elementary as for secondary teachers. The college therefore assumes that prospective elementary school teachers will elect to major in a department appropriate to the elementary school curriculum and will plan to complete their professional study after graduating from Pomona.

The courses in Education at Pomona College (see page 104) are designed for all students. They are offered as integral parts of a liberal collegiate curriculum and as means of satisfying certain of the requirements for certification in California and elsewhere. The college believes that preparation for teaching is enhanced when the academic subjects and the educational process are studied together, thus it strongly recommends that some work in Education and Psychology accompany undergraduate concentrations in the teaching fields.

The post-graduate study for elementary and secondary credentials may be taken at the Claremont Graduate School or at any other college accredited by the state for teacher education. Each graduate school prescribes its own program for fulfilling credential requirements and these programs vary greatly. Students planning to secure teaching credentials are advised to consult with the Psychology Department at Pomona or Education Department of the Graduate School early in their college careers.

THE JOINT PROGRAM OF POMONA COLLEGE
AND THE CLAREMONT GRADUATE SCHOOL
FOR TEACHING CREDENTIALS
AND THE MASTER OF ARTS DEGREE

For students qualifying for the Elementary or Secondary Teaching Internship Programs at Claremont Graduate School, certification

to teach in the public schools of California may be accomplished as follows:

Elementary Internship Program. (1) Introduction to Public School Teaching, in the second semester of the senior year; (2) a summer period of study (7 weeks) at Claremont Graduate School; (3) a year's classroom teaching as an intern, with full salary, under joint supervision of Claremont Graduate School and a cooperating school district; (4) a second and concluding summer study period (6 weeks) at Claremont Graduate School. Each intern who successfully completes the program achieves the California General Elementary Credential and 18 units of graduate credit may be applied toward the Master of Arts degree in Education.

Secondary Internship Program. (1) Introduction to Public School Teaching, in the second semester of the senior year; (2) a summer period of study (8 weeks) in professional education and apprentice teaching; (3) one semester's classroom teaching as an intern, with full salary, under joint supervision of Claremont Graduate School and a cooperating school district; (4) one semester in residence at Claremont Graduate School with opportunity to work toward the Master of Arts degree in a subject field or in Education; (5) suitable study in educational and adolescent psychology as an undergraduate or graduate student. Each intern who successfully completes the program achieves the California General Secondary Credential, earns at least one-half of the minimum number of units required for the M.A. degree, and satisfies the resident requirement for that degree.

Students planning careers in teaching are advised to take courses in the following areas as undergraduates: Contemporary Problems of Education, Introduction to Public School Teaching, Educational Psychology, and either Child or Adolescent Psychology.

SOCIAL WORK

The field of social work covers a vast number of positions in agencies designed to meet human needs. The best training for a career in social work includes an undergraduate degree from a liberal arts college, preferably with a concentration in the social sciences, and a two-year program of graduate work in a professional school of social work. Some positions in public assistance and in

group work are open to holders of the B.A. degree; others require one or two years of graduate training. Students interested in social work careers are urged to consult the Chairman of the Department of Sociology and Anthropology, who is qualified to advise on course offerings in the College, graduate school requirements, and specific job qualifications.

The Curriculum

THE PURPOSE OF Pomona College is to prepare students for a society which expects of them leadership in diverse roles and offices, humble or great. The college endeavors to help its students toward a life in which professional achievement is accompanied by personal happiness, cultural balance, and social responsibility. Its program, therefore, includes courses intended for general education as well as courses designed for specialized study and preprofessional training.

The immediate objective of general education, as expressed in the course requirements of the College, is to help the student develop:

1. Ability to use the English language effectively, in reading, in writing, and in speech.
2. Knowledge of scientific thought and method.
3. Understanding of the historical development of our civilization.
4. Understanding of human society, its problems and its institutions.
5. Understanding of the nature and operation of the American economic and political institutions.
6. Knowledge of literature and the fine arts.
7. Awareness of ethical and spiritual values.

With these purposes in mind, the College expects that certain courses be taken in the Freshman and Sophomore years.

To secure the benefits of intellectual discipline derived from concentrated study, and at the same time, in many instances, to prepare for professional training after graduation, every student is required by the end of the sophomore year to select a field of concentration in which he will complete not less than twenty-four units of upper-division work during his Junior and Senior years. The field of concentration may be represented by one department or may extend beyond departmental limits to include closely related subjects. For students of outstanding ability and well-defined interests, the field of concentration may be developed into a program of honors study. These requirements and programs of study are described in detail in the following pages.

FACULTY ADVISERS

Each new student is assigned to a faculty adviser. Advisers to Freshmen are general advisers who assist Freshmen in the selection of courses and general adjustment to the academic life of the College. At the end of the student's first year and in the light of his academic interest an adviser is assigned with whom the student will work during the remainder of his college course. If at any time a change is deemed wise it is made through the Registrar's Office.

SUMMARY OF REQUIREMENTS FOR THE DEGREE

Pomona College awards only the bachelor of arts degree. Commencement honors, *cum laude*, *magna cum laude*, and *summa cum laude*, are awarded on the basis of the over-all average of the student's work, and of the comprehensive examination.

Units: 126 units (semester hours) of work are required for graduation except for those students who, because of physical handicap or transfer from an institution not having the requirement, are excused from all or part of the required Physical Education. In such instances, and only by vote of the Classification Committee, students may graduate with as few as 120 units. (See Physical Education Activities.)

A "unit" consists of one recitation or lecture period, or one laboratory period a week for one semester. A recitation or lecture period covers fifty minutes; a laboratory period covers, in general, the time of three such periods. In order to complete the course in eight semesters one must take each semester an average of fifteen units of work exclusive of physical education activities.

Grade Points: In order to graduate, a student must not only earn a certain number of units, but also attain an average of at least C grade in all units for which he has registered in the Associated Colleges. An explanation of the grading system will be found on page 81.

Residence: A minimum of four semesters in regular full-time attendance is required for graduation. For transfer students entering with junior standing, this means the four remaining semesters. For all students, except those engaged in the C.I.T. program, both semesters of the senior year must be taken in full-time attendance.

Distribution Requirements: All students must satisfy the requirements for distribution as explained on page 85. These requirements should be met in the Freshman and Sophomore years, but their completion may be postponed to the Junior year. Postponement to the Senior year requires the permission of the Classification Committee.

Upper Division Requirements: In the Junior and Senior years all students must undertake a program of concentration leading to a concentration examination or its equivalent. (See page 86.)

Physical Education Activities: Physical Education Activities must be included in the registration of each student every semester, in accordance with the student's classification, until a maximum of six units has been completed. Freshmen and Sophomores register for two activities each semester, and Juniors and Seniors one activity. Freshmen and sophomores enrolled for Military are required to take only one physical education activity per semester since one-half unit of the two units per semester of the basic ROTC course is Military Drill and is substituted for the second physical education activity. Exemption from this requirement is possible only by permission of the Classification Committee on the recommendation of the College Physician and the Department of Physical Education. Transfer students who met the Physical Education requirement of the institution from which they transferred need take only the amount required for their classification. No more than six units of Physical Education Activities and their corresponding grade point value may be applied toward graduation requirements.

American History and Institutions: To be eligible for graduation all students are required by the laws of the State of California to pass examinations in American history and in American and California institutions, including the provisions and principles of the United States Constitution and the principles of California state and local government as established under the Constitution of this State. While courses are helpful in preparing for the examinations, it is not possible to satisfy the requirements by the passing of any Pomona College course or courses. Examinations to satisfy these requirements will be given semi-annually in September and in the spring on dates which will be announced well in advance. Each candidate will be examined once without fee, but if he fails to pass the first time, re-examination will be given only upon presentation of a receipt from the Business Office for the payment of the usual \$2.00 fee for special examinations. Candidates who have failed once, however, must take re-examinations at the time scheduled for the regular examinations. These examinations will be objective in character.

Any student who has not satisfied these requirements before the beginning of the second semester of his senior year will not be considered a candidate for graduation and will not be eligible to take the concentration examination for that semester. Reading lists for those preparing for the examinations are obtainable from the departments of History and Government. Members of those departments will offer a series of public lectures each spring which will be mature interpretations of the subject, but which will not in themselves provide all the factual information necessary to pass the examinations. Students failing an examination are advised to take a course in that field before attempting it again.

Foreign Languages: Although the College does not specify a knowledge of foreign languages as a requirement for the degree, all students are urged to take at least one year of foreign language study. Since several departments require a foreign language in their programs of concentration, the student should ascertain the language requirement of the program he is planning to undertake, and if he is not already prepared to meet it, should include the study of the required language in his Freshman and Sophomore years.

Graduation Fee: Every student expecting to graduate at the end of any given semester must file an application for graduation at the Registrar's Office not later than the beginning of his final semester and must include the graduation fee (\$10.00) with the payment of his other fees at the time of such registration. Failure to comply with these two requirements will automatically exclude a student from graduation that semester.

Requests for consideration as candidates for the Pomona College degree from former students who for any reason discontinued attendance before completing all requirements for graduation will not be considered unless submitted within seven years from the time the student normally would have been graduated.

ACADEMIC REGULATIONS AND PROCEDURE

GRADES AND GRADE POINTS: Each Candidate for graduation must earn an average of at least C (i.e., twice as many grade points as units) in courses for which he has registered in the Associated Colleges.

A (excellent)	= 4 grade points per unit.
B (very good)	= 3 grade points per unit.
C (average)	= 2 grade points per unit.
D (passing)	= 1 grade point per unit.
P (passing)	= 0 grade points per unit.
F (failure)	= 0 grade points per unit. May not be made up except by repeating course.
I (incomplete due to illness)	
W (withdrawn with permission)	

All F, and I grades reported by instructors must be accompanied by a specific statement in writing of the reason for the grade. In case of an I grade, the statement must include a detailed explanation of how the grade can be made up. A copy of this statement is given to the student. All conditions for removing I grades must be met within seven weeks of the beginning of classes of the following semester. I grades not satisfactorily made up within this time limit automatically become F.

The I mark is given where illness on the part of a student justifies the granting of additional time for the completion of work. It may be changed to whatever grade the student earns. Instructors wishing to give an I grade for a justifiable cause other than illness must first receive permission to do so from the Classification Committee.

An F grade can be made up only by repeating the course. Where the F grade is incurred in a Physical Education activity, the same course must be repeated when next offered. A student may not continue in a year course other than Physical Education in which he has received an F the first semester. The making up of work which has received the F grade does not expunge the grade from the record. Although credit and grade points are allowed for the

repeated work all units attempted and grade points earned are counted in computing the student's average.

Juniors and Seniors are allowed to select work for a pass-fail grade outside their fields of concentration, provided that this includes not more than 2 courses (not to exceed 8 units) in any one semester up to a maximum of 4 courses (not to exceed 16 units) for the two-year period. This selection must not include work taken to fulfill distribution requirements or physical education activities. Up to 6 units of work in junior and senior courses in reading and/or research within the concentration may be graded on a pass-fail basis at the discretion of the instructor.

Courses taken on the pass-fail basis are not calculated into the student's grade point average; however, units passed are counted toward the unit requirement for graduation.

Students must indicate courses to be taken on a pass-fail basis at the time of pre-registration and this may not be changed after the last day for entering classes.

The mark W is used where a student has withdrawn from a course in accordance with the provisions outlined under Changes in Registration.

Amount of work: The College regulates the amount of work a student is allowed to carry. The normal registration is 15-16 units of academic work for each of eight semesters plus Physical Education activities and/or Military Drill. In addition a student may elect for credit each semester not more than two of the following: Band, Choir, Publications, Orchestra, or Play Production. The minimum full-time load is 12 units of academic work. Registrations above 17 academic units require a recommendation from the student's adviser and the further approval of the Dean of the Faculty. Registration below 12 academic units places the student in Special Standing. A student admitted to the college as a special student may be given regular standing only by action of the Admissions Committee. A regular student who drops to special standing may be readmitted to regular standing only by action of the Classification Committee. Special students are not considered to be candidates for a degree.

Auditing of Courses: Students regularly enrolled in the Associated Colleges may, with the consent of the instructor, audit courses. Such arrangements will not be officially recorded and will not receive credit. An auditor may not participate actively in course work and may not, therefore, request registration for credit after the normal deadline for requesting course registration. Persons not regularly enrolled in the Colleges may audit courses provided they obtain the instructor's permission and pay the regular auditor's fee of \$10 per course.

Quality of work: A student is expected to secure each semester twice as many grade points as the total number of units of registration.

By the middle of each semester instructors are requested to report all students doing unsatisfactory work for the period preceding the date of the report. In addition to these general reports, instructors are encouraged to make reports at any time concerning individual students who are not in good scholastic

standing. Advisers and deans receive such reports and take such steps as are advisable in each individual case.

At the end of each semester a complete report is made on every student. This report becomes a part of the student's record and indicates his standing in the courses for which he has been registered.

The college may at any time require the withdrawal of a student if the quality of his work seems to warrant such action. Decision in every such case is reached by the joint action of the Student Affairs and Classification Committees in consultation with the student's adviser.

Completion of work: To be counted as work completed in the course, all papers, reports, drawings, and other assigned exercises must be turned in to instructors before the final examination.

Academic Record: All collegiate work for which a student registers constitutes a part of the academic record, whether or not the work is completed. Students failing to provide the Registrar's Office with transcripts of registrations in other institutions may be subject to dismissal from the College.

Reading Period: A reading period of three weeks is provided at the end of each semester for certain upper division courses. Participation is at the option of the instructor. An instructor who desires to have a class participate in the program should announce that fact to the class at the beginning of the semester. In such classes all regular course assignments, term papers, etc., are due prior to the beginning of the reading period, unless specifically assigned to be done during that time.

Dismissal from Courses: A student who proves unable or unwilling to carry a course satisfactorily may be dropped from it by the Classification Committee upon the recommendation of the instructor.

Class Attendance: Students are expected to maintain regular attendance at all class appointments in the courses for which they are registered.

While there is no general college requirement, each instructor has the right to establish such specific regulations regarding attendance as may seem best suited to his particular department.

Final Examinations: Seniors may not take final examinations in courses in the semester in which they take their concentration examinations. Final examinations are required of all other students in all subjects save as exceptions are made by action of the Courses of Study Committee.

The schedule of final examinations is prepared by the Courses of Study Committee. Instructors may not change dates of examinations without the consent of this Committee. Examinations for individual students may not be given at other than scheduled times except by consent of the Classification Committee and on the presentation to the instructor of a Business Office receipt for a fee of two dollars (\$2.00), unless this fee is remitted by the Committee. Special examinations are rarely scheduled, except in cases of serious emergencies, such as illness.

Field Trips: Field trips are looked upon by the faculty as a legitimate part of certain courses. Permission for such trips is secured by instructors from the

Dean of the Faculty at the opening of each semester. Instructors certify to the Dean the names of students participating in these trips.

Pre-Registration and Registration: On appointed days shortly after the publication of the catalog in the spring and before Christmas vacation in December all students must pre-register by filling out schedules listing their choice of subjects for the following semester. The fee for any change in this pre-registration is three dollars.

New students pre-register and register on announced days at the opening of each semester.

Registration is completed for all students by the payment of tuition on appointed days at the beginning of each semester.

The fee for late pre-registration or late registration is \$2.00 for the first or second day following the appointed days, and \$1.00 additional for every day thereafter to a maximum of \$10.00.

Students are not allowed credit for courses for which they are not formally registered.

Students may not enter courses later than two weeks from the beginning of class work.

Changes in Registration: Upon application to the Registrar's Office and with the approval of his advisers, a student wishing to modify his schedule of studies by addition or substitution of courses may do so within two weeks of the beginning of class work. All students except those registering for the first time are required to pay a change fee of three dollars. No change of registration is official unless the student has complied with the procedure established by the Registrar's Office.

Students withdrawing from laboratory fee courses within three weeks of the beginning of classes will be refunded the full fee. One-half the full fee will be refunded to those withdrawing in the following five-week period but after eight weeks from the beginning of classes no laboratory fees will be refunded.

The last date for withdrawing from a course without penalty is one week after the date of the mid-semester low grade report. Thereafter, the dropping of a course by a student shall entail for him a grade of F for the course, except as circumstances may, in the judgment of the instructor and the Classification Committee, warrant a grade of W.

Matriculation: Pomona College distinguishes between the mere admission of a student and his matriculation. To be eligible for matriculation a student must have shown himself to be in accord with the spirit of the College, have carried and passed a minimum of 12 academic units, and have made at least an overall average of C in all work attempted during the first term of residence. The standing of all students is provisional until they have been matriculated. For those matriculating at the end of their first semester a public matriculation ceremony is held early in the second semester.

Students failing to matriculate at the end of their first semester may be matriculated at the end of any subsequent semester in which they have carried a minimum of 12 academic units provided they have met all the above require-

ments including an overall average of C on all work attempted during their whole period of attendance.

Students are not candidates for a degree until they have been matriculated.

The Faculty Regulation on English:

In the evaluation of all academic exercises the quality of English used by the student may be considered. Every student in every course is expected to use English that is grammatically correct and logically sound. Failure to meet such standards as may be set by the instructors for each course may result in a lower grade or failure in that course.

REQUIREMENTS FOR DISTRIBUTION

All students must satisfy, by the end of the Junior year, the following requirements for distribution. Distribution requirements shall be met only by the Pomona College courses listed below unless exception is granted by the Classification Committee. Students from other institutions who plan to transfer to advanced standing in Pomona College are advised to scrutinize their programs carefully to be sure they have taken the required work and to consult the Registrar concerning any questions as to the acceptance of credit.

1. *English 1a, 1b.*

2. *A year course in a biological science:* Biology 1 and 2, Botany 12 (or Biology 1) and 15; Zoology 10a, b; or 11; 10b and Biology 2.

3. *A year course in a physical science:* Astronomy 1 or 61; Chemistry 1, or 2 and 3, or 51, Geology 1 or 51; Physics 1 or 51.

Note: A student may satisfy the requirement in either Group 2 or Group 3, but not in both, by offering for admission a recommended unit of high school work in one of the sciences listed in the Group from which he wishes to be excused.

4 and 5. *Two year-courses in the social sciences:* History 1a-1b; Economics 51 and 52; Government 51 and 52; Sociology, any 2 of the following: Sociology 51, 52; Anthropology 53, 102; Economics 51 and Government 52. Normally History 1a-1b is taken as one of the two courses.

Note: Sociology 51 and 52 constitute the integrated year course in sociology, but 51 or Anthropology 53 and any *two* upper division courses in the Department also meet the requirement. These need not all be taken in the same year.

6. *A year course in literature, art or music:* This requirement may be met by a course primarily concerned with the appreciation of literature rather than with the mastery of language, or by a year course in art or music. Acceptable courses are:

- a. Six units from English 50a, b, and 58. For students concentrating in English 51 and 52. Optional for Juniors and Seniors, English 125, 126, 127, 160.
- b. In the classics and in modern European languages, any course, in the original or translation, numbered above 50, except courses in composition and conversation.

c. Any year course of not less than four units in music.

d. Art 1 and 2, or any year course of not less than 4 units in Art.

7. *A year course in philosophy or religion:* Either Philosophy 50 and one course from Philosophy 51, 52, 53, 54, 119, 120, 121, 122; or two courses from the Philosophy 110-114 series; Religion 1a,b; 65a,b.

REQUIREMENTS FOR CONCENTRATION IN THE UPPER DIVISION

All students must make a tentative choice of a major field of concentration during the Freshman year and a definite choice by the end of the Sophomore year. During their first two years students will be expected to complete the basic courses required by the department or departments of their choice.

Each student's program of concentration shall culminate in a final written concentration examination over the entire field in which he has concentrated. The student must pass this examination in order to qualify for graduation. In a few departments research projects take the place of the written examination. The regular concentration examinations are given only in June of each year.

No student is permitted to take both the Concentration Examination and final examinations in courses the same semester.

The Concentration Examination must be taken at the officially scheduled time. Students who have failed the Concentration Examination may request permission to retake it at the opening of the college year and at the end of each semester. Such applications must be in the hands of the department concerned by September 1, December 1, or April 1. A fee of \$10 will be charged for a re-examination which is taken at other than the times set for a regular concentration examination. All students who intend to take the regularly scheduled concentration examination must file an application with the Registrar not later than the beginning of the semester in which the examination is to be taken.

In the event that an undergraduate does not take all or part of his Concentration Examination due to illness, he will receive an "I" for the part or parts of the examination not taken. It is the responsibility of the undergraduate who does not take a Concentration Examination due to illness to inform the department giving the examination at the earliest possible time.

A program of concentration leading to the concentration examination must include not less than twenty-four hours and not more than thirty-six hours of work in courses numbered over 100 in the chosen field. These limits apply to that part of the student's program on which the concentration examination will be set.

For the entire four years of college, not more than a total of fifty-two units in any one department (in Music not more than a total of sixty units) may be counted toward graduation.

A few concentrations have been arranged so as to permit a combination of courses in various departments. The requirements for concentration in any department will be found before the list of courses offered by the department.

HONORS STUDY

Honors study consists of a carefully planned program of tutorial work together with related seminars and courses carried out under the direction of a faculty member. Pomona College has offered this type of instruction since 1924 for the student who shows the capacity and inclination for more than average intellectual achievement and self-direction in his study. An Honors program permits freedom from a considerable part of academic routine during the Junior and Senior years and thus makes it possible for an individual to gain a wider and more profound knowledge of a chosen field and its ramifications than the usual curriculum permits.

Conduct of Honors Programs: General administration of Honors work is vested in the Honors Committee which reviews individual programs and administers the faculty regulations regarding them.

Ordinarily a student enters Honors study at the beginning of his Junior year, and in no case may he be admitted after the beginning of his Senior year. A minimum grade-point average of 3.0 is normally required for enrollment in Honors study. In addition, the recommendation of the department in which the student will work is necessary.

The number of hours allotted to Honors study must be not less than 12 nor more than 18. Within these limits a student may be excused from formal classes. The method of Honors study varies; it may be carried on by tutorial conferences or in seminar or laboratory projects. The general requirement which limits to a total of 52 units the work which may be taken in any one department applies also to Honors programs.

Application forms for admission to Honors study may be obtained at the Registrar's Office. They should be filled out in close consultation with the faculty member with whom the program is to be carried on.

Evidence of the success of the student in his Honors work is measured by the quality of the thesis or project with which such a study normally culminates and by written and oral examinations. All or part of the Senior comprehensive examination in a field of study usually forms the written Honors examination in that field. The oral examination will pursue further topics considered in the written examination as well as subjects related to the thesis or project carried out by the student.

A student's performance in his Honors study and examinations is judged by his department, the board which conducts his oral examination, and is reviewed by the Honors Committee. A student who has maintained in all his work a grade-point average of 3.0 and who has met successfully all the requirements of his program of Honors study will be graduated with a notation of that accomplishment on his diploma. He will also be eligible for such general commencement honors as may be indicated by his whole record.

A student who fails to meet the standard of his Honors program as a whole, but who completes work worthy of credit in the hours allocated to Honors, will receive credit and grades for the latter but will not receive notation of an Honors program completed upon his graduation.

Courses of Instruction

ELEMENTARY COURSES numbered below 50 are designed primarily for the freshman year. Courses numbered 50 to 99 are either those which follow the lower course or are the more advanced beginning courses. Courses numbered over 100 are for juniors and seniors and may not be entered by students without previous work in the same field, except by written permission of instructors. Courses numbered NC carry no academic credit. In some departments a definite sequence of courses must be followed.

The hyphen in a course number designates that credit will not be allowed for only one semester of the year course. When course numbers are connected by a comma, credit is given for a single semester, but unless a passing grade has been received for the first semester of the course entrance to the second semester is by permission of the instructor.

Any course may be withdrawn if the enrollment is less than five.

Except by special permission, credit for only one unit of work in a department is not allowed.

COURSES IN THE ASSOCIATED COLLEGES

Following the departmental offerings of Pomona College are listed certain courses in the associated undergraduate colleges which are open to Pomona sophomores, juniors, and seniors under approved conditions. Normally only those courses so listed are open to Pomona College students. It should be noted that many of the Scripps College courses are year courses and consequently credit cannot be allowed for only one semester. To enroll in courses other than those listed, students must first obtain a permission slip from the chairman of the corresponding department at Pomona. Each regular student in residence in Pomona College shall, however, select not less than half of his registration each academic year from courses in Pomona College. Normally freshmen will take their entire programs of study in the college of their residence. In a few departments involving the use of physical equipment and laboratory space, such as art and the sciences, it is necessary to impose limits on the exchange privileges.

Certain courses in the Claremont Graduate School are also open

to Pomona seniors who are concentrating in the fields in which the courses are offered. Short titles for these courses are given following departmental offerings. For fuller description consult the catalog of the Claremont Graduate School. Permission to enroll in graduate courses must be secured from the chairman of the department in which the senior is concentrating and from the instructor giving the course.

Where a course in one of the other colleges duplicates the material of a Pomona course, credit will not be given for both.

DIVISIONS

The courses in the Pomona College curriculum are arranged in three divisions as follows:

DIVISION I [*Humanities*] Art, Chinese, Classics, Comparative Literature, English, German, Music, Philosophy, Religion, Romance Languages, Russian.

DIVISION II [*Natural Sciences*] Astronomy, Biology, Botany, Chemistry, Geology, Mathematics, Military Science, Physics, Psychology, Zoology.

DIVISION III [*Social Sciences*] Economics, Government, History, Oriental Affairs, Physical Education, Sociology and Anthropology.

Anthropology

See Department of Sociology and Anthropology.

Art

Two types of concentration are open to students of art within the department: the History of Art and the Practice of Art.

Not more than 16 hours of applied art courses numbered under 100 are accepted toward graduation.

A reading knowledge of French or German is strongly recommended.

CONCENTRATION: HISTORY OF ART

Lower Division Requirements: Art 1, 2, 51 or Art 3, 51.

Upper Division Requirements: 30 units of upper division courses of which 24 units are in the History of Art. Art 190 and 191 are required.

CONCENTRATION: PRACTICE OF ART

Lower Division Requirements: Art 1, 2, 6, 9 or Art 3, 6, 9, 51.

Upper Division Requirements: 30 units of upper division art courses of which 16 units are in the Practice of Art and 12 units are in the History of Art. Art 105 must be taken for four semesters. Students are required to take either Art 120 and 125 or eight units of Art 162.

INTRODUCTORY COURSES

1. INTRODUCTION TO ART. *Mr. Lowry.* A course designed to acquaint the student with what a work of art is, and with the major critical and historical interpretations of the work of art. 2 units. First semester. *MW*, 2:15-3:05.

2. INTRODUCTION TO ART. (Studio). *Mr. Ruben.* An introduction to the various approaches of the artists of today and the past to the creative act. The student works with different materials on problems of visual communication. No previous training in the practice of art is expected. 2 units. Second semester. *M*, 2:15-3:05; *W*, 1:15-3:05.

3a-3b. DESIGN. *Mr. Hammersley.* A basic course concerned with the fundamentals of design as applied to painting and drawing. 2 units. *TTh*, 1:15-3:05.

6a-6b. DRAWING. *Mr. Hammersley.* An introductory course investigating various drawing problems and methods as applied to the human figure, still life and landscape. 2 units. *TTh*, 9-11.

9a-9b. BEGINNING SCULPTURE. *Mr. Zajac.* A basic course in sculpture, comprising a study of the nature of form. Consideration of sculptural techniques and materials. 2 units. 2 sections. *TTh*, 1:15-3:05; 3:15-5:05.

51a, 51b. SURVEY OF THE HISTORY OF WESTERN ART. *Mrs. Fulton.* First semester: from the prehistoric period through the Gothic era; second semester: from the Renaissance to the contemporary scene. 3 units. *MWF*, 10.

HISTORY OF ART

102. ANCIENT ART AND SOCIETY. *Mr. Carroll.* The art of the Mediterranean basin in antiquity as it relates to political, religious and social history. Special emphasis upon the art of Greece and Rome in response to social change. 3 units. First semester. *TThS*, 10. (Offered in alternate years; offered in 1960-61.)

111. THE ITALIAN RENAISSANCE. *Mrs. Fulton.* Painting and sculpture in Florence and Siena from Giotto to Michelangelo. 3 units. Second semester. *TTh*, 1:15-2:30.

112. MANNERISM AND BAROQUE IN SOUTHERN EUROPE. The art of Italy and Spain from Titian to Velasquez. 3 units. (Omitted in 1960-61.)

113. NORTHERN RENAISSANCE. Emphasis on the painting of the Netherlands and Germany from Van Eyck to Dürer. 3 units. (Omitted in 1960-61.)

114. NORTHERN BAROQUE. Emphasis on painting in Flanders and Holland from Brueghel to Rembrandt. 3 units. (Omitted in 1960-61.)

117a, 117b. ASIAN ART. *Mr. Davidson*. Painting, sculpture, architecture and minor arts of India, China, Japan and surrounding areas in relation to the religious, philosophical and other cultural conditions which affected their production. Special emphasis on the relationships between the arts and Buddhist and Hindu beliefs. First semester: Early China and India. Second semester: Later China and Japan. 3 units. *MWF, 11*.

131. AMERICAN ART. The art of the United States and Mexico from the Colonial period to the present. 3 units. (Omitted in 1960-61.)

136. TWENTIETH CENTURY PAINTING AND SCULPTURE. *Mrs. Fulton*. Major artists from 1900 to the present: Picasso, Matisse, Klee, Brancusi, Moore, etc. 3 units. First semester. *TTh, 1:15-2:30*.

137. TWENTIETH CENTURY ARCHITECTURE. *Mr. Lowry*. A study of the works of the principal architects in America and Europe: Frank Lloyd Wright, Mies van der Rohe, Le Corbusier, etc. 3 units. Second semester. *TTh, 1:15-2:30*.

180. CONCEPTS OF TIME AND SPACE IN ART. *Mr. Lowry*. A course dealing with the ways in which Ancient, Medieval, Renaissance, and Contemporary artists have resolved the problems of depicting space and time in their painting. The relationships of these solutions to prevailing concepts in science and philosophy are included. 3 units. First semester. *TTh, 2:40-3:55*.

190a-190b. PROBLEMS IN THE HISTORY OF ART. *Mr. Lowry and Staff*. A senior seminar in which emphasis is given to (1) the writing of critical papers on original works of art in local collections and exhibits, and (2) the discussion of the theoretical writings of major art historians and critics. Offered primarily for majors. 3 units. Arranged.

191a, 191b. RESEARCH IN ART HISTORY. *Mr. Lowry and Staff*. A directed program in which majors do research on a particular phase of Art History in preparation for an actual exhibit of works of art which they plan and install. May be repeated for credit. 2 units. Arranged.

195a, 195b. DIRECTED READING. *Staff*. Seniors concentrating in art may enroll for individually planned reading programs, usually supplementary to advanced courses. Permission of the departmental chairman required. 3 units each semester. Arranged.

PRACTICE OF ART

65a, 65b. INTERMEDIATE SCULPTURE. *Mr. Zajac*. Continuing study of the technique and materials of sculpture. 2 units. Arranged.

105a, 105b. ADVANCED DRAWING. *Mr. Ruben*. 1-2 units. May be repeated for credit. *MW*, 3:15-5:05.

120a, 120b. PAINTING. *Mr. Hammersley*. A course investigating various painting problems and methods as applied to still life, the human figure and landscape. The painting course is essentially a continuation of the drawing class, with the addition of an emphasis on the use of paint. 2 units. *TTh*, 3:15-5:05.

125a, 125b. ADVANCED PAINTING. *Mr. Ruben*. 2 units. May be repeated for credit. Arranged.

162a, 162b. ADVANCED SCULPTURE. *Mr. Zajac*. A course open only to advanced students of ability for the development of original problems in various media. May be repeated for credit. 1 to 3 units. Arranged.

185a, 185b. PROBLEMS IN PAINTING, GRAPHIC ARTS AND SCULPTURE. *Mr. Hammersley, Mr. Ruben, Mr. Zajac*. Opportunity is given for the pursuit of individual projects to suit the interest and ability of the student. Open only to Seniors. 1 to 3 units. Arranged.

AVAILABLE AT SCRIPPS COLLEGE

II-120. OIL PAINTING. *Mr. Kuntz*. Prerequisite II-2 or equivalent. One or two year course. *MWF*, 1:15-4:05.

II-121. PAINTING. *Mr. Dike*. Prerequisite II-2 or equivalent. One or two year course. *TTh*, 1:15-4:05. 3 hours arranged.

II-123. CERAMICS. *Mr. Soldner*. One or two year course. Prerequisite II-2 or equivalent. Two sections. *MWF*, 1:15-4:05, *TTh*, 1:15-4:05, and 3 hours arranged.

II-125. GRAPHICS. *Mr. Darrow*. Year course. Prerequisite II-2 or equivalent. Open to juniors and seniors. *MW*, 4-6 and arranged hours.

II-126. DESIGN. *Mrs. Ames*. One or two year course. Prerequisite II-2 or equivalent. Open to juniors and seniors. *TTh*, 1:15-4:05 and 3 hours arranged.

II-130. SCULPTURE. *Mr. Stewart*. One or two year course. Prerequisite II-2 or equivalent. *MWF*, 1:15-4:05.

II-141. ARCHITECTURAL DESIGN AND PLANNING. *Mr. Criley*. One or two year course. Prerequisite II-2 or equivalent and permission of instructor. *MW*, 1:15-4:05 and 3 hours arranged.

II-145. HISTORY OF ART AND ARCHITECTURE IN THE MIDDLE AGES. *Mr. Scott*. *MWF*, 8.

Astronomy

The major stellar telescopes at the Frank P. Brackett Observatory are a recently rebuilt 12" Newtonian-Cassegrain reflector and a new 6" refractor. Both telescopes are of the highest professional quality possessing features found on the largest research instruments, and are equipped for visual, photographic or photoelectric observations. Additional equipment includes a 4" refractor, a 3" meridian transit, a 13 ft. spectrohelioscope and a Wild T-2 theodolite. Classroom instruction is facilitated by the use of a new Spitz Model A-1 planetarium installed in the Millikan Building.

A minimum program for concentration in Astronomy, with a minor in Mathematics and Physics, must include Astronomy 61a, b; 156a, b; Physics 51a, b; 151a, b; 185; 101a, b; and Mathematics 65a, b and 151a, b or their equivalents. For majors in Astronomy intending to proceed to graduate study, the following courses are also recommended: Astronomy 180a, b; Physics 141a, b; and Mathematics 152a, b. The student should possess a reading knowledge of French and German.

1a, 1b. **ELEMENTARY ASTRONOMY.** *Mr. Routly.* A descriptive account of the solar system and stellar astronomy. Periodic observation of interesting celestial objects with equipment at the Observatory. Field trips to the astronomical centers of the region. No prerequisites. 3 units. *TThS, 10.*

61a, 61b. **GENERAL ASTRONOMY.** *Mr. Routly.* Intended for astronomy majors and other qualified science students. Topics covered include co-ordinate systems, navigation, astronomical instruments, the solar system, stellar types, spectral classification, galactic structure, etc. Laboratory periods are compulsory and form an integral part of the course. Prerequisite: Mathematics 50a, b, or its equivalent, taken previously or concurrently. Laboratory fee \$4.00 per semester. 4 units. Class *MWF, 10.* Laboratory to be arranged.

156a, 156b. **ASTROPHYSICS.** *Mr. Routly.* The course covers the elements of atomic and molecular spectroscopy, stellar atmospheres, stellar interiors and interstellar space. Prerequisites: Mathematics 151a, b taken previously or concurrently and Physics 51a, b. No previous training in Astronomy required. Course intended for majors in Astronomy and other qualified science students. 3 units. Arranged.

180a, 180b. **SELECTED TOPICS IN ASTRONOMY.** *Mr. Routly.* A research type of course, emphasizing independent study, intended for Astronomy majors proceeding to graduate study. Some suitable investigation, either theoretical or observational, will be conducted by each student terminating in a senior thesis. Prerequisite: Astrophysics 156a, b taken previously or concurrently. 1 to 3 units. Classes to be arranged.

Botany

BOTANY CONCENTRATION

Plan I. Botany: LOWER DIVISION COURSES. Botany 12, 15, 75 (at least 3 times). UPPER DIVISION COURSES. Botany 103, 105, 107, and 123; Biology 112. Botany 127 and 167 are recommended. RELATED FIELDS, Zoology 10 or 11; high school or college chemistry.

Plan II. Botany-Biology: LOWER DIVISION COURSES. Botany 12 (or Biology 1), 15, 75 (at least 2 times). Zoology 10 or 11. UPPER DIVISION COURSES. Botany 107a, b, 103a, 105a, 123a, and 103b or 105b or 123b. Biology 112. Two of the following courses: Zoology 115, 120, 137. RELATED FIELD, high school or college chemistry.

Prospective candidates for graduate work should consult the department concerning foreign language requirements for advanced degrees.

Seniors under either concentration program are required either (1) to present a satisfactory paper and to pass an oral examination on the field of the paper, or (2) to pass the senior comprehensive examination.

Plant Collection: All students in botany (either plan) should consult Mr. Benson concerning the plant collection built up in various courses. This is a graduation requirement, and the collection must be submitted for inspection at the time of the senior comprehensive examination. Credit for individual work on the collection may be had by registration in Botany 75. This course *must be taken in the last semester before graduation* (in order to bring the collection into good order before it is submitted for the final inspection).

Agriculture, Forestry, Landscape Architecture. See mimeographed materials at the Botany Department.

Note: Any Course in Botany numbered 100 to 175 and Biology 112 and 159 may be taken for graduate credit.

COURSES IN BIOLOGY

Biology 1. GENERAL BIOLOGY. *Mr. Phillips.* (For Biology 2, see Zoology page 154). A course for those who do not intend to take further work in the biological sciences. Students who have had high school courses in Biology, Botany, or Zoology should take Botany 12 and 15 or Zoology 10 or 11 instead of Biology 1 and 2. Illustrations drawn largely from the plant kingdom. First or second semester: may precede or follow Biology 2 or Botany 15 to fulfill the biology requirement. Laboratory fee \$6.00. 3 units. First semester: *MWF, 10*; second semester: *MWF, 11*. Laboratory *M, 1:15-3:05* or *3:15-5:05*.

Biology 105. BACTERIOLOGY. *Mr. Amrein.* See page 155.

Biology 112. GENETICS. *Mr. Andrus.* See page 155.

Biology 159. HISTORY OF BIOLOGY. *Mr. Amrein.* See page 155.

COURSES IN BOTANY

12. GENERAL BOTANY. *Mr. Benson.* Elementary biological principles as illustrated in plants; structure in relation to physiology, evolution, heredity, and plant geography. Botany 81 is open concurrently with or following Botany 12 as a 1-unit elective involving individual reading or field or laboratory study in nearly any field of botany. Laboratory fee \$5.00. 3 units. First semester. Class and laboratory, *TTh, 1:15-3:05* and some longer field trips (*Th 1:15-4:05* or arranged).

15. FIELD CLASSIFICATION OF PLANTS. *Mr. Benson.* An elementary discussion and field course in classification of flowering plants. Botany 75 is open concurrently as an elective. It is required for students concentrating in botany. Laboratory and field trip fee \$5.00. 3 units. Second semester. Class and field, *TTh, 1:15-3:05*. (*Th, 3:15-4:05* should be kept open for longer trips.)

75. INDIVIDUAL PLANT CLASSIFICATION. *Mr. Benson.* Collection and classification of ferns, cone-bearing trees, and flowering plants. Normally first taken concurrently with Botany 15. May be repeated for credit. Laboratory fee \$2.00. 1 or 2 units. *First-year enrollments*, second semester *T, 3:15* and arranged. *Subsequent enrollments*: appointments and arranged. Field trips arranged.

81. ELEMENTARY BOTANICAL PROBLEMS. *Staff.* Individual reading, laboratory work, or research in any field of botany. Each semester, 1 or 2 units, but not more than 1 unit for the first enrollment. May be repeated for credit. Permission of the instructor required. Laboratory fee \$2.00. Arranged.

103a, b. PLANT ECOLOGY. *Mr. Phillips.* The effect of environment upon plants; analysis of plant communities. Prerequisite: Botany 15 or permission of the instructor. Laboratory fee \$6.00. 3 units. Class *F, 11*; conferences arranged; laboratory and field trips, *F, 1:15-4:05* and occasional longer trips. (Offered in alternate years; offered in 1960-61.)

105a, b. EVOLUTION AND CLASSIFICATION OF FLOWERING PLANTS. *Mr. Benson.* Evolution, relationships, and definition of flowering plant groups; methods and principles of taxonomy. Prerequisite: Botany 15. Laboratory and field trip fee \$6.00. 3 units. Class *MW, 11*; laboratory, *M, 2:15-4:05*; field trips arranged. (Offered in alternate years; offered in 1960-61.)

107a, b. THE PLANT KINGDOM. *Mr. Benson.* Structure, development, evolution and relationships of classes and orders of algae, fungi, mosses, liverworts, cone-bearing trees, and flowering plants. Prerequisite: Botany 12 or Biology 1 or equivalent. Laboratory fee \$5.00. 3 units. (Offered in alternate years; not offered in 1960-61.)

123a, b. PLANT PHYSIOLOGY. *Mr. Phillips.* Physiological processes and principles, including photosynthesis, germination, dormancy, water relations, mineral nutrition, respiration, and growth. Prerequisite: High school or college chemistry. Laboratory fee \$10.00. 3 units. (Offered in alternate years; not offered in 1960-61.)

127. **ANATOMY OF FLOWERING PLANTS.** *Mr. Carlquist.* Structure, life history, and development of angiosperms (flowering plants). Prerequisite: Botany 12 or equivalent. 3 units. First semester. Laboratory fee \$5.00. Class *TTh*, 9; laboratory, *W*, 1:15-4:05. (Offered in alternate years; offered in 1960-61.)

167. **PLANT MICROTECHNIQUE.** *Mr. Carlquist.* Preparation of microscopic slides to represent structure or development of plants or for cytological data. Partly individual work. Prerequisite: Botany 12 or the equivalent; or permission of the instructor. Laboratory fee \$7.00. First semester. 2 or 3 units. (Offered in alternate years; not offered in 1960-61.)

181. **ADVANCED BOTANICAL PROBLEMS.** *Staff.* Individual work in any field of botany. The student may anticipate preparation of a thesis for the Master's Degree by beginning a problem or continuing one begun in upper division courses. Permission of the instructor required. Laboratory fee \$2.00. 1 to 3 units. Each semester. May be repeated for credit. Arranged.

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Graduate work in botany is offered through the Claremont Graduate School by the joint staffs of Pomona College and the Rancho Santa Ana Botanic Garden and the Graduate School. The facilities for research in plant classification are particularly good because the Pomona College Herbarium includes about 315,000 specimens and the combined herbaria more than 450,000. The libraries of both institutions have been developed most extensively for work in this field, and the Garden has unusual facilities for experimental study of plants.

GRADUATE COURSES OPEN TO QUALIFIED UNDERGRADUATES

Written permission of the Pomona College department and of the instructor are required for enrollment in graduate courses.

202. **HISTORY OF CULTIVATED PLANTS.** *Mr. Lenz.* An intensive study of the origin, development, and distribution of selected plants of economic importance. 3 units. First semester. (Omitted in 1960-61.)

210. **CYTOLOGY.** *Mr. Lenz.* Structure and function of the plant cell with special reference to nuclear phenomena. 3 units. First semester. *W*, 1:15-4:05.

217. **ALGOLOGY.** A general survey of the algae. 3 units. Second semester if sufficient demand. Arranged. (Omitted in 1960-61.)

220. **EVOLUTION.** *Mr. Grant.* The genetic basis of evolutionary changes in populations of plants and animals. The topics discussed are variation, selection, drift, isolating mechanisms, evolutionary rates, and evolutionary trends. 3 units. First semester. *F*, 8:00-12:00.

225a, b. **PHYLOGENY OF ANGIOSPERMS.** *Mr. Munz.* Evolution of and relationships in flowering plants. 2 units. Arranged. (Omitted in 1960-61.)

227. **MORPHOLOGY AND CLASSIFICATION OF FUNGI.** *Mr. Benjamin.* A general course in mycology. 4 units. First semester. (Omitted in 1960-61.)

237. **MORPHOLOGY AND CLASSIFICATION OF BRYOPHYTES.** *Mr. Phillips.* A survey of the liverworts and mosses. Offered when there is sufficient demand. Arranged.

245. **PLANT GEOGRAPHY.** *Mr. Munz.* The vegetation of the earth with reference to geological history, present distribution, and evolution. First semester. Arranged. *W*, 8:00-10:00.

247. **PTERIDOPHYTES AND GYMNOSPERMS.** *Mr. Carlquist.* 3 units. Second semester. Arranged. (Omitted in 1960-61.)

255. **HISTORY OF NORTH AMERICAN FLORAS.** *Mr. Benson.* Interpretation of modern floras in the light of geologic history of Cenozoic floras. Offered second semester when there is sufficient demand. Arranged.

Chemistry

Concentration Requirements: Chemistry 1, 57, 110, 111, 112, 158, 159, 183; Physics 51, 52; Mathematics 1, 65. Chemistry 51 may be substituted for Chemistry 1 and 57, and Mathematics 50 for 1 and 65. Junior and senior majors are expected to attend the weekly departmental seminars which, in 1960-61, will normally be scheduled on Wednesday at 4:15.

Pre-professional Program: Students who plan to go to graduate school in chemistry should take Chemistry 184, 185 and 187 in addition to the courses listed above. This program has been approved by the American Chemical Society Committee for Professional Training of Chemists.

1a, 1b. **GENERAL CHEMISTRY.** *Mr. Smith, Mr. Quinlan.* A beginning course to acquaint the student with the basic principles of chemistry and the reactions of the more common elements. The second semester laboratory is devoted entirely to qualitative analysis. Limited to science majors. Fee \$6.00 and deposit \$5.00 each semester. 4 units. Lectures *MWF*, 9; laboratory *MTh* or *F*, 1:15-4:05.

2. **INTRODUCTORY CHEMISTRY.** *Mr. Quinlan.* A brief introduction to the physical principles of chemistry and elementary inorganic reactions. This course and Chemistry 3 are recommended as a year sequence for the general student and those interested in the biological sciences. Fee \$6.00 and deposit \$5.00. 4 units. First semester. Lectures *MWF*, 8; laboratory *W*, 1:15-4:05.

3. **INTRODUCTION TO ORGANIC CHEMISTRY.** *Mr. Quinlan.* A brief course which includes a study of both aliphatic and aromatic compounds. Prerequisite: Chemistry 2 or consent of instructor. Fee \$6.00 and deposit \$5.00. 4 units. Second semester. Lectures *MWF*, 8; laboratory *W*, 1:15-4:05.

51a, 51b. **BASIC CHEMISTRY, WITH QUANTITATIVE ANALYSIS.** *Mr. Fuller.* This course includes the material of Chemistry 1 and 57. It is intended to acquaint unusually well qualified students with the principles of quantitative, structural, and descriptive chemistry. Prerequisites: Permission of the instructor, three

years of high school mathematics or Mathematics 1, and high school chemistry or physics. Open to freshmen by examination only. Fee \$6.00 and deposit \$8.00 each semester. 5 units. Lectures *MWF*, 9; laboratory *M*, 2:15-5:05 and *F*, 1:15-4:05.

57. QUANTITATIVE ANALYSIS. *Mr. Beilby*. An introduction to quantitative methods of analysis. Prerequisite: Chemistry 1, or 2 and 3. Fee \$6.00 and deposit \$10.00. 4 units. Second semester. Lecture *TTh*, 10; laboratory *MW* or *TTh*, 1:15-4:05.

110a, 110b. ORGANIC CHEMISTRY. *Mr. Hansch*. The first semester is devoted to the study of aliphatic compounds and the second semester to aromatic. Prerequisite: Chemistry 1 or 51, or 2 and consent of instructor. 3 units. Lectures *MWF*, 8.

111a, 111b. INTRODUCTION TO ORGANIC LABORATORY METHODS. *Mr. Hansch*, *Mr. Quinlan*. Instruction in organic laboratory operations, qualitative organic analysis and organic preparations. Students concentrating in chemistry should take Chemistry 112a, 112b concurrently. Fee \$6.00 and deposit \$10.00 each semester. 1 unit. Laboratory *T* or *F*, 1:15-4:05.

112a, 112b. ORGANIC SYNTHESIS. *Mr. Hansch*. Advanced organic preparations. The second semester will include discussion of the use of chemical literature. Fee \$6.00 and deposit \$5.00 each semester. 1 unit first semester. 2 units second semester. *F*, 1:15-4:05, plus one hour arranged second semester.

158a, 158b. PHYSICAL CHEMISTRY. *Mr. Fuller*. The principles of thermodynamics with applications to physico-chemical systems, solutions, phase equilibrium, chemical equilibrium, electrochemistry, elementary kinetic theory, chemical kinetics, and selected topics. Prerequisites: Chemistry 1 or 51, Physics 51, Mathematics 50 or 65. Recommended: Chemistry 57, or equivalent, and Mathematics 125 previously or concurrently. 3 units. Lectures *MWF*, 11.

159. PHYSICAL CHEMISTRY LABORATORY. *Mr. Smith*. Prerequisite: Chemistry 158a, b. (158b may be taken concurrently.) Fee \$6.00 and deposit \$10.00. 3 units. Second semester. Laboratory *M*, 2:15-5:05 and *TW*, 1:15-4:05.

183. ADVANCED ANALYTICAL CHEMISTRY. *Mr. Beilby*. A survey of modern methods of analysis with the emphasis in the laboratory on instrumental methods of analysis. Prerequisite: Chemistry 51 or 57. Fee \$6.00 and deposit \$10.00. 4 units. First semester. Lecture *MWF*, 9, for first ten weeks of semester; laboratory *M*, 2:15-5:05 and *TW*, 1:15-4:05 for the last ten weeks of semester.

184. ADVANCED ORGANIC CHEMISTRY. *Mr. Hansch*. The structure and reactivity of organic chemical compounds considered from a theoretical point of view beginning with the postulates and Dirac matrix formulation of quantum mechanics, with special emphasis on the concepts of operationalism and its experimental ramifications. Prerequisites: Chemistry 110, 158a. 3 units. Second semester. Lectures *MWF*, 10.

185. **ADVANCED INORGANIC CHEMISTRY.** *Mr. Smith.* The structure and reactivity of inorganic chemical compounds discussed at an advanced level, with special emphasis on inorganic complexes and ligand field theory. Selected topics such as nuclear chemistry and chemistry of some of the less familiar elements. Prerequisites: Chemistry 158 (may be taken concurrently). 3 units. First semester. Lectures *MWF*, 10.

187. **QUALITATIVE ORGANIC ANALYSIS.** *Mr. Hansch.* The use of systematic intuitive methods for the identification of organic compounds. Prerequisite: Chemistry 110, and reading knowledge of German. Fee \$6.00 and deposit \$10.00. 4 units. First semester. Lecture *W*, 1:15, plus three arranged laboratory periods.

198. **SUMMER RESEARCH.** *Staff.* Open to junior and senior students of proven ability, by invitation. June 15-August 1. 4 units. Arranged.

199. **SELECTED TOPICS IN CHEMISTRY.** *Staff.* Directed independent study of advanced subjects not treated in other courses in the department. Open to upper division students of proven ability with the permission of the staff member(s) involved. Seniors engaged in studies requiring laboratory work may enroll for a maximum of six units, the work being taken in one semester or extended over two, and a thesis being required. In any case a "B" or better average in chemistry is prerequisite to enrollment. If laboratory work is involved, fee \$6.00 and deposit \$10.00 each semester. Arranged.

Classics

In the interest of providing a maximum offering in Classics, a coordinated program is offered by the departments of Pomona and Scripps Colleges.

For concentration in Classical languages and literature a student is required to take at least 24 units in courses numbered over 100 in Greek and Latin languages or their Scripps equivalents and 12 units in modern European languages (French and German preferred). A selected reading list from Greek and Latin authors must be completed by the student in class work or outside reading to the satisfaction of the department. Additional courses in ancient and medieval history, philosophy, Continental and English literature, and modern European languages are recommended.

Joint Concentration: Philosophy and Classics. See Philosophy.

GREEK

51a-51b. **ELEMENTARY GREEK.** *Mr. Carroll.* Greek grammar and syntax for beginning students. 51a, 3 units; 51b, 4 units. *MWF*, 8. (Omitted in 1960-61; offered at Scripps College.)

101a, 101b. **INTERMEDIATE GREEK.** *Mr. Carroll.* For students with Greek 51 or equivalent. Selected readings from Classical and New Testament Greek. 3 units. Arranged.

182a, 182b. GREEK READINGS AND COMPOSITION. *Mr. Carroll.* For students with Greek 101 or equivalent. This course may be repeated for credit with permission of the department. 3 units. Arranged.

LATIN

57a, 57b. INTERMEDIATE LATIN. *Mr. Carroll.* For students with one or two years of secondary school Latin or Latin 1. Readings from Cicero, Vergil and Ovid with grammar review. 3 units. Arranged. (Omitted in 1960-61; offered at Scripps College.)

117a, 117b. ROMAN WRITERS OF THE REPUBLIC. *Mr. Carroll.* Selections from Plautus, Terence, Sallust and Lucretius. For students with three or more years of Latin or Latin 57b. 3 units. Arranged.

GREEK AND ROMAN LITERATURE IN TRANSLATION

161. CLASSICAL MYTHOLOGY. *Mr. Carroll.* The structure and interpretation of Greek and Roman myth. Readings from ancient literature in English translation. No prerequisite. 3 units. Second semester. *TThS*, 10.

AVAILABLE AT SCRIPPS COLLEGE

I-6. ELEMENTARY GREEK. *Mr. Palmer.* Year course. Arranged.

I-58. INTERMEDIATE LATIN. *Mr. Palmer.* Year course. Arranged.

I-106a, b. GREEK AND ROMAN COMEDY AND SATIRE. *Mr. Palmer.* Arranged.

I-108. LATIN READING AND PROSE COMPOSITION. *Mr. Palmer.* Year course. Arranged.

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HISTORY OF GREECE. For description see History 101.

HISTORY OF ROME. For description see History 102.

ANCIENT ART AND SOCIETY. For description see Art 102.

Comparative Literature

Concentration in Continental Literature. Requirements: 24 units in courses numbered over 100. Twelve of these units must be in Continental Literature (in translation), twelve in European or classic literature in the original language. Electives in English literature and Classics 161 are strongly recommended.

181. READINGS IN CONTINENTAL LITERATURE IN TRANSLATION. *Mr. Baumann.* A study of outstanding works of Dante, Stendhal, Dostoevsky, Tolstoy, Thomas Mann, and others. (Open to Seniors. Others admitted only on permission of the instructor.) May be repeated for credit. 3 units. First semester. Arranged.

Economics

Prerequisites: Economics 51 and 52, or equivalent, are prerequisites for all advanced courses in economics. A grade of C or better in both courses is required for concentration in the field.

Concentration requirements: Economics 57, 71, 103, 104, 109, 110, and other courses in economics to bring the total of upper-division courses to 24 units.

Recommended Programs: Economics 51, 52, 57 and 71 should be taken in the sophomore year, 103, 104, 109, and 110 in the junior year, and other courses in the field of the student's special interest during the senior year. In order to achieve a desirable balance between breadth and depth, students should seek a well-integrated selection of courses in the humanities, social sciences, and sciences during each of the four years. Consideration should be given to election of History 118.

Students who plan to attend a graduate school of business or enter a corporation training program should include 72, 111, and expository writing.

Pre-legal students should take a full year of accounting 71 and 150, and 189, 198, 199 in addition to courses required of majors in the Junior year.

Economics-Engineering students should take both the 103, 109 and the 104, 110 sequences before taking courses numbered over 150.

Students who contemplate a career in teaching or research, whether in educational institutions, non-profit research organizations or private industry, should include courses in mathematics and foreign language. Both are often required for advanced degrees in Economics.

Three-Year M.A. Program: Proximity and cooperation between Pomona College and the Claremont Graduate School make it possible for students to plan, beginning with their junior year, a three-year program enabling them to earn both the B.A. and M.A. degrees. Any student interested in pursuing such a program is invited to confer with the Department.

AMERICAN ECONOMIC AND POLITICAL INSTITUTIONS

In order to familiarize its students with the economic and political foundations of American life, the Departments of Economics and Government have organized a year course in American economic and political institutions through which students *who cannot take a full year* in each subject may nevertheless gain some understanding of both fields. This course combines a semester's study of economics with another semester devoted to American Government.

That part of the course pertaining to economic institutions (Economics 51) is offered only during the fall term and that pertaining to politics (Government 52) only in the spring, but students may begin the course at whichever time best suits their schedules. The combined course may be offered in fulfillment of one of the requirements for distribution in the lower division. For outline of contents and time schedule see regular course descriptions under the respective departments.

51. **ECONOMICS. Staff.** An introduction to modern economic society with emphasis on the nature and operation of the American economy. 3 units. First semester. *MWF, 9, 10, 11; TThS, 9, 10*; for those continuing second semester with Government 52, *MWF, 8; TThS, 8*.

52. **ECONOMICS. Staff.** A continuation of Economics 51 with emphasis on production, distribution of income, and contemporary public policy issues; completes the introduction to the entire field of economics. Prerequisite: Economics 51. 3 units. Second semester. *MWF, 9, 10, 11; TThS, 9, 10*.

57. **STATISTICS FOR THE SOCIAL SCIENCES. Mr. Walker.** A course in the application of quantitative method to economic and social problems with emphasis on the interpretation of the results obtained. (Credit will not be given for both Economics 57 and Psychology 102.) 3 units. Second semester. *TTh, 8*; laboratory, *T or W, 1:15-3:05*.

71. **ELEMENTARY ENTERPRISE ACCOUNTING. Mr. Rostvold.** The theory and practice of accounting in the merchandising business firm. Corporation, partnership, and individual proprietorship accounting. 4 units. First semester. *MWF, 8*; laboratory, *Th or F, 1:15-3:05*.

72. **ELEMENTARY COST ACCOUNTING. Staff.** The theory and method of accounting in the manufacturing business unit. Emphasis on job-order, process, and standard cost systems. Prerequisite: Economics 71 or equivalent. 4 units. Second semester. *MWF, 8*; laboratory, *Th or F, 1:15-3:05*.

ADVANCED COURSES

Economics 51 and 52 or equivalent are prerequisites for all advanced courses in Economics.

100. **FISCAL AND MONETARY POLICIES. Mr. Walker.** The economic basis for political decisions involving government expenditures and taxes, management of the money system, and financing of the public debt. Emphasis is on current issues. Not open to economics majors. 3 units. First semester. *MWF, 11*.

103. **MONEY AND BANKING. Mr. Schaefer.** Principles of money, credit, and banking; the relation of money, income, and prices; and the problems of monetary management and fiscal policy. 3 units. First semester. *TThS, 9*.

104. **ECONOMIC THEORY AND BUSINESS POLICY. Mr. Schaefer.** A study of economic organization, markets and prices, resource use and income division in markets containing various mixtures of competition and monopoly. 3 units. First semester. *MWF, 10*.

106. **ECONOMICS OF CONSUMPTION. Staff.** A study of consumer behavior and an analysis of factors behind demand; includes such subjects as mathematics of finance, insurance and investments. 3 units. First semester. *MWF, 11*.

109. **NATIONAL INCOME. Mr. Walker.** A study of national income concepts and their measurement, the determinants of the level of national income and employment, and the general features and causes of fluctuations in economic activity. 3 units. Second semester. *TThS, 9*.

110. INDUSTRIAL ORGANIZATION AND PUBLIC POLICY. *Mr. Morton*. The role of competition in a free society; public policies designed to maintain competition, alter its character, or regulate monopoly, in light of the economic characteristics and business practices of modern industry; a study in economics and law. 3 units. Second semester. *MWF, 10*.

111. LABOR ECONOMICS. *Mr. Sultan*. A brief history of organized labor is followed by an analysis of wage policies, labor productivity, collective bargaining, minimum wage legislation, labor monopoly and current labor legislation. 3 units. First semester. *MWF, 11*.

123. INTERNATIONAL ECONOMICS. *Mr. Douglass*. An introduction to the theory of international trade and finance and its use in explaining contemporary international economic relations, such as barriers to trade, international payments systems, foreign aid and investment, regional integration, and the economic factors in diplomacy. 3 units. First semester. *TThS, 8*.

150. MANAGEMENT AND LEGAL ACCOUNTING. *Mr. Rostvold*. An analytical development of the role of accounting as a basis for managerial control and decision-making. Emphasis will be placed upon the legal, tax, and financial aspects of the modern business entity. Prerequisite: Economics 71. 3 units. Second semester. *MWF, 9*.

153. ECONOMIC DEVELOPMENT. *Mr. Douglass*. A study of the processes and problems of promoting economic development in low income countries, and of the inter-relation between economic development and changes in the political, social and cultural institutions of these nations. Includes discussion of important policy issues such as national economic planning, population control and international assistance programs. 3 units. Second semester. *TThS, 8*.

180. DEVELOPMENT OF ECONOMIC IDEAS. *Staff*. An examination of the major innovations in economic theory from Adam Smith to the present which contribute to an understanding of the field of economics. Emphasis is on the evolution of systems of thought and their impact on modern economic doctrines. 3 units. First semester. *MWF, 11*.

189. PUBLIC FINANCE. *Mr. Rostvold*. An analysis and evaluation of the effects of current governmental taxing, spending, borrowing, and debt management policies on the American economy. 3 units. First semester. *MWF, 9*.

191. MONETARY THEORY AND POLICY. *Mr. Morton*. The interrelationships of money, income, and prices, with emphasis on the theory of output as a whole and policies designed to maintain high level employment without inflation. Prerequisites: Economics 103, 104, and 109, or equivalent. 3 units. Second semester. *Th, 7:00-9:30 p.m.*

195. COMPARATIVE ECONOMIC SYSTEMS. *Mr. Schaefer*. A comparison of alternative forms of economic organizations, with major emphasis on the economic systems of the United States and the Soviet Union. 3 units. Second semester. *TThS, 10*.

197a, 197b. READING AND RESEARCH. *Staff*. Supervised advanced study in

selected fields of economics. Open to qualified seniors with the permission of instructor and chairman of the department. 3 units. Arranged.

198, 199. SENIOR SEMINAR. *Staff*. Seminar for economics majors. Reading and discussion of leading books, new developments in economic theory, current problems, and public policies. 3 units. *TTh*, 1:15-2:30.

AVAILABLE AT CLAREMONT MEN'S COLLEGE

American economic institutions, corporation finance, business law, and personnel administration are available at Claremont Men's College. Students who have completed the prerequisites, Economics 51 and 52, may enter these courses with the permission of their advisers.

AVAILABLE AT CLAREMONT GRADUATE SCHOOL

Open to qualified seniors with the permission of the chairman of the department and the instructor of the graduate seminar:

MATHEMATICS FOR ECONOMISTS. *Mr. Vandermeulen*. 4 units. First semester.

NATIONAL INCOME ANALYSIS. *Mr. Walker*. 4 units. First semester.

Education

Students considering a teaching career at the elementary, secondary, or junior college level should seek advisement early in their college years. In this way undergraduate programs can be planned to meet credential requirements and to contribute most directly toward successful teaching careers at the level selected. See page 74 for further information.

For advisement, including information on certification requirements in California and other states, please consult the following faculty members: POMONA COLLEGE: Mr. William Faust. THE CLAREMONT GRADUATE SCHOOL: *Elementary*—Mr. Malcolm P. Douglass, Harper Hall 1; *Secondary and Junior College*—Mr. Arthur R. King, Jr., Harper Hall 201, and Mr. John A. Brownell, Harper Hall 205. Appointments for conferences may be arranged by calling the Education Secretary, Ext. 2211.

155. CONTEMPORARY PROBLEMS OF EDUCATION. *Mr. Curran*. The following topics will be discussed in this course: the school as a social institution; the school and community structure; conflicts regarding the place of the school in American society. Prerequisite: Sociology 51 or permission of instructor. 3 units. First semester. Arranged.

170. INTRODUCTION TO PUBLIC SCHOOL TEACHING. *Mr. Douglass, Mr. King*. This course is planned for senior students considering a teaching career in elementary or secondary schools. Emphasis is placed upon developing an understanding of the role of public education in contemporary society. Attention is given to the curriculum of the elementary and secondary school, issues and problems of instruction, and an evaluation of current trends and practices in public education. In the latter part of the semester an extensive school and classroom observation program is provided. It may comprise the first part of the Claremont Graduate School Teaching Internship Programs. 3 units. Second semester. *F*, 2:15-4:05.

English

English 1 or its equivalent is prerequisite for all other departmental courses. English 51 and 52 and History 1 are required of all students intending to concentrate in Literature or Writing. English 52 is required of students intending to concentrate in Drama, and Drama 82a, b is strongly recommended. English 64 is prerequisite for upper-division courses in writing.

A reading knowledge of at least one language and literature other than English, as well as high school preparation in Latin, is strongly recommended. In most graduate schools, candidates for the degree of Doctor of Philosophy are required to have a reading knowledge of *two* foreign languages.

Transfer students may offer equivalent courses pursued at other colleges in fulfillment of these requirements and recommendations.

CONCENTRATION WITH EMPHASIS ON LITERATURE

The concentration in literature consists of 24 units in upper-division courses, distributed in four groups, and 3 units of directed reading (English 197) in the second semester of the Senior year.

Group I (6 units): ENGLISH 153, 155, 156, 171.

Group II (9 units): ENGLISH 131, 132, 133, 134a, b.

Group III (6 units): ENGLISH 127, 160, 162, 163, 164.

Group IV (3 units): ENGLISH 125, 126.

CONCENTRATION WITH EMPHASIS ON WRITING

The following pattern of courses must be completed, for a total of at least 27 units, by students concentrating in writing.

1. Upper-division courses in composition (181, 183, 196, Drama 112): a minimum of 6 units, of which 4 units must be in English 181. Note that certain courses in composition may be repeated under proper conditions.

2. English 153, 155, 156, 171: 6 units.

3. English 125, 126, 131, 132, 133, 134: 9 units, of which at least 6 units must be elected from courses numbered 131 through 134.

4. English 162 and 163: 6 units.

NOTE: Students who graduate before September, 1961, may follow slightly different patterns of distribution, described in the *Catalog* for 1958-59.

Students are required to read, from a list of major works, books not covered in the courses which they have elected. This supplementary reading will be included in the comprehensive examination.

CONCENTRATION WITH EMPHASIS ON DRAMA

The concentration in drama consists of 26 units in upper-division courses, as specified below:

Group I (8 units): DRAMA 107, 108a, b, 109, 110.

Group II (9 units): ENGLISH 155a, b, 161a, b, 164.

Group III (9 units): ENGLISH 131, 132, 133, 134a, b, 125, 126.

Books on a supplementary reading list will be included in the comprehensive examination.

Students who graduate before September, 1962, may follow the concentration in Speech and Drama described in the *Catalog* for 1959-60.

CONCENTRATION IN LITERATURE AND PHILOSOPHY: See Philosophy.

ENGLISH

1a, 1b. ENGLISH: AN INTRODUCTORY COURSE. *Staff*. Writing: intensive practice in exposition. Reading: major works of literature from classical times to the present. Students with marked deficiencies in the use of English may be required to meet for a fourth hour (arranged). 3 units. Section meetings, *MWF*, 8, 9; *TThS*, 8, 9.

50a, 50b. GREAT AUTHORS. *Mr. Jayne, Mr. Bracher*. A critical study of great writers representing the major periods and the dominant forms of literature in English. For students who do not intend to concentrate in English. 3 units. *MWF*, 11.

51. MAJOR ENGLISH POETS. *Mr. Bracher*. Poets studied as representative of particular periods in English literary history: Chaucer, Milton, Pope, Wordsworth, Arnold, Eliot. 3 units. First semester. *TThS*, 10.

52. LITERARY ANALYSIS. *Mr. Mulhauser, Mr. Frazer, Miss Havens*. Practice in the close reading and analysis of major literary forms. 3 units. Three sections. Second semester. *TThS*, 10.

58. INTRODUCTION TO PROSE FICTION. *Mr. Beatty, Mr. Aitken*. A survey of important works in prose fiction with emphasis upon selected novels—English, American, and continental—from the eighteenth century to the present. 3 units. Each semester. *MWF*, 9.

61a, 61b. PUBLICATIONS. *Mr. Frazer*. Practice of journalism by work on student publications. Open to editors and staff members of *Student Life* and *Metate*. Prerequisite: work on these publications for two semesters and permission of the instructor. May be repeated for credit. One unit. Arranged.

63. EXPOSITORY WRITING. *Mr. Aitken, Mr. Wine*. Practice in expository writing, especially for the student who is planning a career in business or one of the professions, such as law, medicine, or scientific research. Enrollment limited to 25 students. 3 units. Each semester. *MWF*, 11.

64. NARRATIVE AND DESCRIPTIVE WRITING. *Mr. Weismiller, Mr. Mulhauser*. A course for students who, having shown some ability as writers in English 1 or its equivalent, wish to take up the basic creative problems of narration and description. This course is a prerequisite for English 181 and 183. Enrollment limited to 25 students each semester. 3 units. First semester: *TThS*, 9. Second semester: *TTh*, 1:15-2:30.

ADVANCED COURSES

Courses numbered above 100 are open to Juniors and Seniors. Sophomores may enroll only by permission of the instructor.

125. AMERICAN LITERATURE I. *Mrs. Jordan*. Selected major figures from the beginnings to Poe and Hawthorne. 3 units. First semester. *TThS*, 10.

126. AMERICAN LITERATURE II. *Mr. Holmes*. The latter half of the nineteenth century, from Melville to E. A. Robinson and Dreiser. 3 units. Second semester. *TThS*, 10.

127. AMERICAN LITERATURE III. *Mr. Holmes*. Major writers from 1900 to the present: Frost, O'Neill, T. S. Eliot, Dos Passos, Hemingway, and others. 3 units. First semester. *TThS*, 9.

131. ELIZABETHAN POETRY AND PROSE. *Miss Havens*. Non-dramatic literature of the Elizabethan period, with emphasis upon the poems of Edmund Spenser. 3 units. First semester. *MWF*, 9.

132. SEVENTEENTH-CENTURY POETRY AND PROSE. *Mr. Jayne*. Non-dramatic literature of the period 1600-1660, excluding Milton. Emphasis on the Metaphysical poets, Cavalier poets, and major prose writers. 3 units. Second semester. *MWF*, 9.

133. EIGHTEENTH-CENTURY POETRY AND PROSE. *Mr. Bracher*. Selected authors from Swift to Burns, studied in relation to the social and intellectual history of the period. 3 units. Second semester. *MWF*, 2:15.

134a, 134b. LITERATURE OF THE NINETEENTH CENTURY. *Mr. Mulhauser*. An intensive study of the major poets and prose-writers of the Romantic period (first semester) and the Victorian period (second semester). 3 units. *TThS*, 9.

153. CHAUCER. *Miss Havens*. A study of Chaucer as the outstanding narrative and dramatic poet of the transition from the medieval to the modern world. 3 units. Second semester. *MWF*, 11.

155a, 155b. SHAKESPEARE. *Mr. Strathmann*. A study of the principal plays and of Shakespeare's career as a dramatist. First semester, mainly comedies and histories; second semester, mainly tragedies. 3 units. *MWF*, 11.

156. MILTON. *Mr. Weismiller*. A study of the poems and selected prose works, emphasizing the literary and intellectual background of Milton's work. 3 units. First semester. (Offered in alternate years; not offered in 1960-61.)

160a, 160b. THE ENGLISH NOVEL. *Mr. Aitken*. Major British novelists from DeFoe to Conrad, with emphasis on the contribution of each to a changing and developing tradition. 3 units. *MWF*, 10.

161a, 161b. ENGLISH DRAMA. *Mr. Jayne*, *Mr. Wine*. A chronological study of the work of major dramatists, excluding Shakespeare. 3 units. *MWF*, 9.

162. CONTEMPORARY NOVELISTS. *Mr. Frazer*. Joyce, Faulkner, and other recent novelists, studied with emphasis upon their techniques and moral views. 3 units. Second semester. *MWF*, 10.

163. CONTEMPORARY POETS. *Mr. Weismiller*. Poets of the twentieth century, Gerard Manley Hopkins to the present, studied in the light of the great poetic tradition. 3 units. First semester. *MWF, 10*.

164. CONTEMPORARY DRAMATISTS. *Mr. Wine*. British and American drama of the twentieth century. 3 units. First semester. *MWF, 2:15*.

171. THE ENGLISH LANGUAGE. *Mr. Bracher*. A survey of the English language from its origins to the present. Especially recommended to prospective teachers. 3 units. First semester. *MWF, 11*.

172. LITERARY CRITICISM. *Mrs. Jordan*. Reading of important documents of literary criticism; application of critical principles and techniques to selected literary works. 3 units. First semester. (Omitted in 1960-61.)

181a, 181b. THE SHORT STORY. *Mr. Frazer*. Practice in the writing of short fiction. (A student who has completed both English 181 and English 183 may repeat one of these courses for credit.) Enrollment limited to 25 students. Prerequisite: English 64 and permission of the instructor. 2 units. *T, 1:15-3:05*.

183a, 183b. CREATIVE WRITING. *Mr. Weismiller*. Supervised practice in the forms of creative writing, selected according to the needs and abilities of the students. (A student who has completed both English 181 and English 183 may repeat one of these courses for credit.) Enrollment limited to 25 students. Prerequisites: English 64, and English 181 or permission of the instructor. 2 units. *T, 1:15-3:05*.

190. SENIOR SEMINAR. Topics will be changed each year. Two sections. Enrollment in each section limited to 12 senior concentrators. 3 units. First semester. Evening class, arranged.

POETRY: FORM AND CONTENT. *Mr. Weismiller*. A study of the relationship between (a) poetic form and technique and (b) poetic statement, including imagery.

POINT OF VIEW IN FICTION. *Mr. Frazer*. A study of the various techniques of narration in English and American fiction.

196. PROBLEMS OF WRITING. *Staff*. A specialized course in advanced composition; group and individual conferences. Prerequisites: English 64, 181 and 183 and permission of instructor. 1 or 2 units. Second semester, one hour a week. Arranged.

197. SENIOR THESIS. *Mrs. Jordan, Mr. Bracher*. Individually planned reading programs directed toward the writing of a senior thesis. Required of all Seniors concentrating in English literature. 3 units. Second semester. Conference period *T* or *Th, 2:15-4:05*.

DRAMATICS

17. INTRODUCTION TO THE THEATRE. *Staff*. A general survey of the theatre arts, designed to acquaint students with the various theatrical forms—stage, motion picture, radio and television—and to establish standards for intelligent observation and increasing discrimination. Each semester. 2 units. *MF*, 3:15-4:05.

81a, 81b. PLAY PRODUCTION. *Staff*. Directed study in play production, both in acting and in stagecraft. One unit of credit granted for either fifty hours of rehearsal time under direction, or fifty hours of technical work under direction, or for fifty hours of rehearsal and technical work combined. Not more than two units of credit may be granted in any one year. A total of eight units of credit may be applied toward graduation.

82a, 82b. CHARACTER PRESENTATION IN DRAMATIC LITERATURE. *Mrs. Allen*. A study of theories of acting and principles of stage behavior. Pantomime, improvisation, and presentation of scenes from plays. 3 units. *TThS*, 9.

107. STAGECRAFT. *Staff*. A consideration of the visual elements of play production; theory and practice in scene design, costuming and lighting. Permission of instructor required. 2 units. Second semester. One hour lecture, one hour lab. *T*, 1:15-3:05.

108a, 108b. DEVELOPMENT OF DRAMA AND THEATRE. *Mrs. Allen*. The origin and development of the drama from Ancient Greece to the present day. Emphasis on the theatre as an institution and as an art form. 3 units. *TThS*, 10.

109. STYLES OF ACTING. *Staff*. Detailed study of characterization and styles of acting. Prerequisite: Drama 82 or permission of the instructor. 3 units. First semester. *MWF*, 10.

110. DIRECTING. *Mrs. Allen*. Fundamental principles of stage directing. Application of theories in class exercises and the direction of scenes. 3 units. Second semester. *MWF*, 10.

112a, 112b. PLAYWRITING. *Mrs. Allen*. Principles of playwriting and practice in writing plays. Study of the structure and style of significant plays for their light on the problems of the beginning playwright. 3 units. Arranged.

SPEECH

70. SPEECH COMPOSITION AND DELIVERY. *Mr. Martin*. A course to develop skill in effective oral communication. Emphasis is given to training in the analysis, support, development of subject material, appropriate use of language, effective vocal and bodily expressiveness. 3 units. First semester: *MWF*, 11; *TThS*, 8. Second semester: *TThS*, 9.

72. VOICE AND PHONETICS. *Mr. Martin*. Application of a study of the physiology of the voice mechanism and of the characteristics of speech sounds.

Designed for those wishing to develop a more flexible and responsive voice for public speech and the theatre, and for those interested in speech correction or linguistics. 3 units. First semester. (Omitted in 1960-61.)

102. PUBLIC SPEAKING. *Mr. Martin*. Study of the principles of persuasive discourse. In frequent performance, students will examine and apply the logical and non-logical modes of influencing belief and action: methods of holding attention and interest, adaption to types of audiences, suggestion, motivation, dramatization of ideas. 3 units. Second semester. *MWF, 11*.

104. ARGUMENTATION AND INQUIRY. *Mr. Martin*. A study of techniques for preparing and presenting argumentative discourse, including briefing of argument, analysis, inference, refutation, fallacies and stratagems, style, group problem-solving, styles of leadership. Frequent student performance. 3 units. First semester. *MWF, 9*.

105. ORAL INTERPRETATION. *Mr. Martin*. Through frequent oral presentation of various literary forms including the short story, narrative, lyric and dramatic poetry, and dramatic literature, students are encouraged to an awareness of the nature and craftsmanship of imaginative literature, and of critical standards for choosing material for oral reading. 3 units. Second semester. *MWF, 9*.

106. HISTORY AND CRITICISM OF AMERICAN PUBLIC ADDRESS. *Mr. Martin*. Study of the importance of public address in the development of American institutions. Speeches, speakers, and the basic issues which run through the address of each historical period will be emphasized. Legislative, legal, religious, and popular speaking will be studied in readings, lectures, and individual problems. 3 units. Second semester. Arranged. (Omitted in 1960-61.)

194. READINGS AND RESEARCH IN DRAMA AND SPEECH. *Staff*. Reading and research programs for senior students who are capable of independent study in fields not included in regularly scheduled courses. 2 or 3 units. Arranged.

AVAILABLE AT SCRIPPS COLLEGE

Some Scripps courses (starred) duplicate courses at Pomona. Credit will be allowed for either the Scripps or the Pomona course, but not both.

*I-113. CONTEMPORARY FICTION. *Mrs. d'Estournelles*. Spring semester. *MWF, 10*.

*I-116a, b. SHAKESPEARE. *Mr. Gray*. *TTh, 3:45-5:00*.

*I-136. SEVENTEENTH CENTURY ENGLISH LITERATURE. *Mr. Fogle*. First semester. *MW, 3:00-4:15*.

I-142. ENGLISH POETS FROM TENNYSON TO HOUSMAN. *Mr. Gray*. First semester. *MWF, 11*.

*I-143. CHAUCER. *Mr. Armour*. Fall semester. *TTh 10* and arranged hour.

*I-144. THE ROMANTIC POETS. *Mr. Armour*. Year course. *MWF, 8*.

*I-145. MILTON. *Mr. Fogle*. Second semester. *MW, 3:00-4:15*.

I-152a, b. COMPARATIVE LITERATURE. *Mr. Merlan*. *W, 4:15-6:05*.

Geology

Concentration Requirements: Mathematics 1, Chemistry 1, Geology 51, 52, 103, 104, 105 and at least 8 additional upper division units in geology.

Pre-professional Program: A student who plans to do graduate work in geology should take all courses listed below except Geology 1. It is expected that he will include Chemistry 1, Physics 51 and Mathematics 65, and acquire a reading knowledge of German, Russian or French. It is an advantage to add Physics 52 or Chemistry 57 if the student's program permits.

1a, 1b. INTRODUCTION TO EARTH SCIENCE. *Mr. McIntyre.* A non-technical course intended for students majoring in humanities or social sciences. Emphasis is placed on the evolution of land forms in western North America. Field trips and laboratory demonstrations are arranged for the examination of common minerals and rocks. No prerequisites. 3 units. *MWF, 10.*

51a, 51b. INTRODUCTION TO GEOLOGY. *Mr. Baird.* This course is designed for students majoring in the natural sciences and having an elementary background in mathematics, physics and chemistry. 3 units. *MWF, 10.*

52a, 52b. LABORATORY AND FIELD WORK SUPPLEMENTING GEOLOGY 51a, 51b. *Mr. Baird.* This course includes an introduction to hand specimen determination of rocks and minerals and the interpretation of geological maps. The course is normally open only to students who are taking or have taken Geology 51. 1 unit. *W, 1:15-4:05.*

103a, 103b. INTRODUCTION TO MINERALOGY AND PETROGRAPHY. *Mr. McIntyre* (first semester), *Mr. Baird* (second semester). The first semester is devoted to crystallography and determinative mineralogy and includes X-ray diffraction and differential thermal analysis methods. The second semester is primarily concerned with the optical study of rock-forming minerals and ores and includes universal stage procedures. Prerequisites: Mathematics 1 and Chemistry 1 completed or in progress. Laboratory fee \$4.00 each semester. 4 units. Class and laboratory *WF, 11, and TF, 1:15-4:05.*

104a, 104b. FIELD GEOLOGY. *Mr. Quaide.* Prerequisites: Geology 51, 52, 103 completed or in progress. 2 units. Thanksgiving recess, Spring vacation and Saturdays must be kept free for field work.

105a, 105b. STRUCTURAL GEOLOGY. *Mr. Quaide* (first semester), *Mr. McIntyre* (second semester). Prerequisites: Geology 51, 52, 103 completed or in progress. Laboratory fee \$4.00. 2 units. Class and laboratory *T, 10; W, 1:15-4:05.*

153. IGNEOUS AND METAMORPHIC PETROGRAPHY AND PETROGENESIS. *Mr. Baird.* Prerequisites: Geology 51, 52, 103. Laboratory fee \$5.00. 3 units. First semester. Class and laboratory *Th, 9; M, 2:15-5:05, and Th, 1:15-4:05.*

154. SEDIMENTARY PETROLOGY AND SEDIMENTATION. *Mr. Quaide.* Prerequisite: Geology 153. Laboratory fee \$8.00. 3 units. Second semester. Class and laboratory *Th, 9; M, 2:15-5:05 and Th, 1:15-4:05.*

157. PALEONTOLOGY. *Mr. Quaide*. Prerequisite: Consent of instructor. Laboratory fee \$6.00. 3 units. First semester. Class and laboratory *T, 9; 1:15-4:05* and arranged.

158. GEOLOGY OF CALIFORNIA. *Mr. Quaide*. Prerequisite: Geology 105. 3 units. Second semester. Class and laboratory *T, 9; 1:15-4:05* and arranged.

181a, 181b. SENIOR GEOLOGICAL FIELD INVESTIGATION AND SEMINAR. *Mr. McIntyre*. Prerequisites: Geology 104, 105 and consent of instructor. Laboratory fee \$4.00 each semester. 1 to 3 units. *Th, 4:15* and arranged.

German Language and Literature

A program of concentration in German consists of a minimum of 18 units in courses numbered above 100 and 6 additional units in German or in a related field selected according to the student's needs and interests. Special programs for students interested in German Literature, translation, library work, or post graduate work in German can be had from the department.

Extra-curricular activities: Regular programs on a variety of subjects of cultural interest are sponsored by the *Deutscher Verein* (German Club) and *Delta Phi Alpha* (National Honorary German Fraternity). Students are invited to participate in a bi-weekly *Deutscher Tisch* where students have lunch together and converse in German.

Language Laboratory: In addition to three class periods, students enrolling in first and second year German are required to take one 45-minute laboratory period per week. Students should sign up for the laboratory period of their choice at room 13, Holmes Hall, on Thursday, Friday and Saturday of the opening week. Laboratory fee, \$2.00 per semester.

1a-1b. ELEMENTARY GERMAN. *Staff*. Emphasis on the acquisition of basic reading skills and aural comprehension. 1a, 3 units; 1b, 4 units. *MWF, 9, 10, 11; TThS, 10*; laboratory arranged.

53a-53b. ADVANCED GERMAN. *Staff*. Intensive reading of selected German works, with collateral reading in the field of the student's individual interest. Continued practice in German conversation. Prerequisite: German 1 or equivalent. 53a, 3 units; 53b, 4 units. *MWF, 9; TThS, 9*; laboratory arranged.

ADVANCED COURSES

102a, 102b. ADVANCED CONVERSATION, READINGS AND TRANSLATION. Intensive critical readings of masterpieces of the eighteenth and nineteenth centuries. Drill in written and oral expression. Prerequisite: German 53 or equivalent. 3 units. (Omitted in 1960-61.)

109a, 109b. GERMAN LITERATURE OF THE NINETEENTH CENTURY. Reading and interpretation of plays, poetry, and narrative prose works which reflect the development of Romanticism to the emergence of Naturalism. Prerequisite:

German 53 or equivalent. 3 units. (Offered in alternate years; not offered in 1960-61.)

113a, 113b. *GERMAN CLASSICS OF THE EIGHTEENTH CENTURY.* A study of the development of Enlightenment through Storm and Stress to the ideal of *Humanität*, as illustrated by the major works of Lessing, Schiller, Goethe. Prerequisite: German 53 or equivalent. 3 units. *TT&S*, 9. (Offered in alternate years; offered in 1960-61.)

158a, 158b. *MODERN GERMAN LITERATURE. Mr. Baumann.* The development of German Literature from 1880 to the present with reference to the political and social changes during that period. 3 units. (Omitted in 1960-61.)

160a, 160b. *SURVEY OF GERMAN LITERATURE. Mr. Baumann.* The development of German Literature from earliest times to the present. 3 units. *MWF*, 11.

190a, 190b. *READINGS AND RESEARCH. Staff.* 3 units. Arranged. (Omitted in 1960-61.)

Government

General Requirement: Government 51 and 52 are desirable prerequisites for advanced courses, but the Department invites students who have taken either of these courses or have had considerable work elsewhere in the social sciences to confer with staff members regarding enrollment in any course desired.

Lower Division Prerequisites for Concentration: The following courses should be completed by the end of Sophomore year: History 1; Government 51, 52; Economics 51, 52. The introductory course in Sociology or Anthropology is strongly recommended and also the elementary course in statistics and a semester of accounting.

Program of Concentration: A minimum of 27 upper division units, each student's program being arranged in consultation with the departmental staff, but including in every case government 184 and completion of an acceptable senior thesis. A reading and speaking knowledge of at least one modern foreign language is strongly advised, particularly for students having any intention of seeking positions in foreign service or of engaging in graduate study.

Pre-legal students majoring in Government should strive for breadth and balance in their programs including, however, in each case the courses on Constitutional Law and Law and Society and at least a semester's work in accounting.

Three Year M.A. Program: Proximity and cooperation between Pomona College and the Claremont Graduate School make it possible for students so interested to plan, beginning with their junior year, a three-year program enabling them to earn both the B.A. and M.A. degrees. Any student interested in pursuing such a program is invited to confer with the Department.

AMERICAN ECONOMIC AND POLITICAL INSTITUTIONS

In order to familiarize its students with the economic and political foundations of American life, the Departments of Economics and Government have organized a year course in American economic and political institutions through which students who cannot take a full year in each subject may nevertheless gain some understanding of both fields. This course combines a semester's study of economics with another semester devoted to American Government.

That part of the course pertaining to economic institutions (Economics 51) is offered only during the fall term; that pertaining to politics (Government 52) may be taken either in the autumn or the spring and either preceding, following or concurrently with Economics 51. The combined course may be offered in fulfillment of one of the requirements for distribution in the lower division. For outline of contents and time schedule see regular course descriptions under the respective departments.

51. FUNDAMENTALS OF POLITICS. *Staff*. An introduction to the theories and institutions of modern democratic and dictatorial states, with special attention to Britain and the USSR. The relations between nation-states. 3 units. First semester. *MWF*, 8, 9; *TThS*, 8, 9. Second semester. *TThS*, 8.

52. AMERICAN GOVERNMENT. *Staff*. Analysis of the American system of constitutional government, mainly on the national level, and of the position of the United States in world politics. May be combined with Economics 51 to enable students who cannot devote more than six hours to the two fields to do some basic work in each. 3 units. First semester. *MWF*, 8. Second semester. *MWF*, 8, 9, 11; *TThS*, 9.

53. CONTEMPORARY POLITICS. *Staff*. Analysis of outstanding issues of the day in national and international affairs, based upon the reading of representative periodicals, both domestic and foreign. 1 unit. Each semester. *Th*, 1:15.

101. STATE AND LOCAL PROBLEMS. *Mr. Blair*. Trends and issues in American city, county, school, metropolitan, and state government, with special reference to the California public and its problems. Emphasis on planning, conservation, and finance. 3 units. First semester. *TTh*, 1:15.

102. SUMMER FIELD PROJECTS (Claremont Summer Session). *Staff*. Individual investigation and report on a) a local community or b) some state or national problem, involving in either case a substantial amount of field work conducted according to a systematic plan prepared and accepted in advance. Open only to students capable of independent work and limited to a maximum of ten. 3-6 units. Time to be arranged in consultation with the instructor.

125. COMPARATIVE POLITICAL SYSTEMS. *Mr. Vieg*. Comparative analysis of political forces and governmental institutions mainly in Britain, France, Germany, and the Soviet Union. 3 units. First semester. *MWF*, 9.

126. GOVERNMENT AND POLITICS OF RUSSIA AND EASTERN EUROPE. *Mr. Neal*. A study of Soviet ideology and institutions and a survey of the political systems

of Yugoslavia and the satellite countries of Eastern Europe. 3 units. Second semester. *MWF*, 9.

131. PARTIES AND PRESSURE GROUPS. *Mr. Flournoy*. Role of parties, pressure groups, politicians and voters in the American political and legislative process. 3 units. First semester. *MWF*, 11.

142. PRINCIPLES OF ADMINISTRATION. *Mr. Vieg*. A study of the essentials of public administration and management: organization, personnel, finance, public relations. Comparison with business administration. 3 units. Second semester. *MWF*, 11.

151. FUNDAMENTALS OF INTERNATIONAL RELATIONS. *Mr. Olson*. Basic factors of power; the balancing process; comparative foreign-policy making; approaches to world order. 3 units. First semester. *MWF*, 8.

155. CONDUCT OF AMERICAN FOREIGN AFFAIRS. *Mr. Olson*. How foreign policy is made and carried out; the Constitutional framework; the Executive and Legislative functions; the role of the public; the idea of "the national interest"; contemporary policies and programs. 3 units. Second semester. *MWF*, 8.

161. CONSTITUTIONAL LAW. *Mr. Flournoy*. Nature and extent of constitutional power; separation of powers doctrine; federal-state relations; powers of Congress and the Presidency; citizenship and suffrage; guarantees of individual rights. 3 units. First semester. *MWF*, 10.

162. LAW AND SOCIETY. *Mr. Flournoy*. An analysis of the role of law and the legal system in American society; the Judicial Process in Common Law Development; the Legislative Process and its relation to the Judicial Process. 3 units. Second semester. *MWF*, 10.

171. POLITICAL THEORY. *Mr. McDonald*. Major political thinkers of the Western heritage in the context of their times. Analysis of basic political values and their implementation. 3 units. First semester. *TTh*, 2:40-3:55.

172. AMERICAN POLITICAL THOUGHT. *Mr. McDonald*. The main currents of American political thought from colonial times to the present. Applications in the light of contemporary political problems. 3 units. Second semester. *TTh*, 2:40-3:55.

184. PROBLEMS IN PUBLIC POLICY. *Mr. Vieg*. An examination of the role of chief executives, legislatures, parties, pressure groups and mass media in the making of public policy, combined with analysis of selected issues of current import. An advanced course in American government conducted as a pro-seminar. Open to non-majors by permission. 3 units. Second semester. *M*, 2:15-4:05 and arranged.

186. SEMINAR IN INTERNATIONAL RELATIONS. *Mr. Olson*. Integration of historical, economic and political aspects of the field, with emphasis upon theory. Open to non-concentrators by permission. 3 units. Second semester. *W*, 2:15-4:05 and arranged.

191, 192. READINGS AND RESEARCH IN GOVERNMENT. *Staff*. Open to students capable of independent study. Individual programs must be approved in advance. 2 or 3 units. Arranged.

193, 194. READINGS AND RESEARCH IN INTERNATIONAL RELATIONS. *Staff*. Designed for advanced students, particularly in International Relations. Directed studies and periodic individual consultations with instructor. 2 or 3 units. Arranged.

HONORS STUDY

Students of marked capacity are invited to arrange with the Department for enrollment in programs of independent study culminating in the presentation of a dissertation on some subject of special interest and significance. One-half of the minimum requirement of 12 units may be met by Government 171 and 184.

STATISTICS FOR SOCIAL SCIENTISTS. For description see Economics 57.

ELEMENTARY ACCOUNTING. For description see Economics 71.

AVAILABLE AT CLAREMONT MEN'S COLLEGE

BUSINESS LAW. *Mr. Fick*. 3 units. First semester.

AVAILABLE AT CLAREMONT GRADUATE SCHOOL

Open to qualified seniors with the consent of the instructor:

210. TOPICS IN THE HISTORY OF POLITICAL THEORY. *Mr. McDonald*. 4 units. First semester.

220. LAW AND PUBLIC POLICY. *Mr. Jordan*. 4 units. Second semester.

235. PARTIES, PRESSURE GROUPS AND PUBLIC POLICY. *Mr. Vieg*. 4 units. First semester.

236. THE LEGISLATIVE PROCESS. *Mr. Blair*. 4 units. Second semester.

240. ADMINISTRATIVE ORGANIZATION AND MANAGEMENT. *Mr. Goodall*. 4 units. First semester.

243. ADMINISTRATIVE LAW. *Mr. Fick*. 4 units. First semester.

252. INTERNATIONAL ORGANIZATION. *Mr. Olson*. 4 units. Second semester.

THE WASHINGTON SEMESTER

A limited number of Pomona students are able to participate in the Washington Semester program conducted by American University, which affords the opportunity of intensive study of the governmental process in Washington, D.C. At American University's invitation, Pomona College is entitled to a quota of four students annually during the fall semester. The major advantage offered by the program is the opportunity to witness personally the operation of the government in its many aspects, as well as to participate in the Washington Semester Seminars, which bring leading officials of the legislative, executive and judicial branches of the government together for discussions

with the participating students. The selection of the four Pomona students who shall represent the college is made on a competitive basis by the Faculty Selection Committee, with preference given to juniors and those whose academic programs are most suitably supplemented by the opportunities afforded by participation in the Washington Semester program. Under a cooperative agreement, tuition is paid in the regular manner to Pomona College while charges for board and room are paid in Washington, D.C. Candidates selected defray their own costs for travel and other expenses. Candidates demonstrating financial need may be eligible for some travel assistance from the Pomona College Institute of Practical Politics. Students interested in the program are invited to consult with the chairman of the Department of Government who serves as local representative.

History

Courses in history are intended to be both useful and interesting to students throughout the College. Only a few are designed specifically for concentrators in the department. History 1, or its equivalent, is a prerequisite for all other courses in history. Except for History 1, either semester of year courses may be taken separately without special permission of the instructor. Qualified sophomores may elect courses in the 100-150 range with the approval of the instructor.

Concentration: The courses taken in a program of concentration in history should be carefully planned in consultation with a member of the History Department. Concentrators are required to take History 1, 51, 140, 190, and a pro-seminar in history. In addition to the foregoing, they must take a total of at least 12 units of upper division courses in history, and a total of at least 6 units of upper division courses in a related field. Knowledge of foreign languages is of great value, and all students in history are urged to work in this area. Students considering graduate study should remember that a reading knowledge of one foreign language is normally required for the M.A. and two languages for the Ph.D.

Comprehensive examination: All concentrators in history will write three comprehensive examinations near the end of the senior year. One of these will be the same for all concentrators and will deal with the field of history as a whole. In addition, each concentrator will select two from the following list of fields in which to be examined: Ancient History; Europe 312-1648; Europe since 1648; the United States; the Far East. Since these fields are broad, equal familiarity with all aspects of them is not required of the student. The department believes that well planned independent reading may partially supplement or replace formal courses as preparation for the examination.

Honors program: The department urges qualified students to undertake programs of Honors Study. These involve independent study under the direction of a member of the department in place of part of the usual program of formal courses.

Joint concentration: For information regarding the joint concentration in Philosophy and History, see Philosophy.

1a-1b. HISTORY OF WESTERN CIVILIZATION. *Staff.* A survey of political, religious, intellectual, and economic developments in Europe and their expanding influence. First semester: Ancient Greece to the end of the Middle Ages; second semester: Renaissance to the present. 3 units. *MWF*, 8, 9, 11; *TThS*, 8.

2. ASIA AND EUROPE. *Mr. Ch'en.* A survey of Eastern contacts with and contributions to Western Civilization with emphasis upon the interdependence of cultures. May be taken concurrently with History 1a-b. 2 or 3 units. Second semester. (Offered in alternate years; not offered in 1960-61.)

51a, 51b. HISTORY OF THE ENGLISH SPEAKING PEOPLES. *Mr. Gleason* and *Mr. Kemble.* The political, economic, and cultural evolution of Great Britain, the British Empire, the United States, and the Dominions. First semester: to 1815; second semester: 1815 to the present. 3 units. *MWF*, 11.

101. HISTORY OF GREECE. *Mr. Carroll.* A survey from the prehistoric age until the Roman conquest with special emphasis on the city-state and democracy. 3 units. Second semester. *MWF*, 9. (Offered in alternate years; offered in 1960-61.)

102. HISTORY OF ROME. *Mr. Carroll.* The Republic and Empire from the founding of the city until the sixth century A.D. 3 units. Second semester. (Offered in alternate years; not offered in 1960-61.)

103a, 103b. HISTORY OF THE MIDDLE AGES. *Mr. Learnihan.* A study of political, economic, intellectual, and religious developments and institutions during the transition from Mediterranean to European civilization. First semester: 312-1054; second semester: 1054-1300. 3 units. (Offered in alternate years; not offered in 1960-61.)

107a, 107b. HISTORY OF ENGLAND. *Mr. Gleason.* The religious, intellectual, economic, and political evolution of Great Britain. Attention will be focused on a series of topics of particular significance. 3 units. *MWF*, 2:15.

108. HISTORY OF THE RENAISSANCE AND REFORMATION. *Mr. Learnihan.* A study of the transition from Medieval to Modern civilization in Europe between 1300 and 1648. 3 units. Second semester. *TTh*, 2:40-3:55.

109. ABSOLUTISM AND ENLIGHTENMENT IN EUROPE. *Mr. Poland.* An analysis of the social, economic, political, and cultural developments in Europe from 1648 to 1789 with France as a focal point. 3 units. First semester. *TThS*, 8. (Offered in alternate years; offered in 1960-61.)

110. FRENCH REVOLUTION AND EUROPEAN REACTION. *Mr. Poland.* Europe from 1789 to 1848 with special emphasis on the impact of France, and the role of the French Revolution in shaping contemporary civilization. 3 units. Second semester. *TThS*, 8. (Offered in alternate years; offered in 1960-61.)

113a, 113b. EUROPE SINCE 1848. *Mr. Poland.* A study of the dominant trends of the 19th century, their phases of crisis and change, their relation to tensions within contemporary Western society. 3 units. *MWF*, 10.

114. HISTORY OF RUSSIA. *Mr. Poland*. A study of the growth of Russia, emphasizing the political, economic, social and intellectual development from Peter the Great to the outbreak of the Revolution, the course of the Revolution, and the development of Soviet society since 1921. This course may be followed by Government 126 to constitute a year's work in Russian history. 3 units. First semester. *TThS*, 10.

117a, 117b. INTELLECTUAL HISTORY OF EUROPE. *Mr. Larnihan*. A study of the formation of ideas and ideals significant in politics, religion and science from classical times to the present. 3 units. *TThS*, 9.

118. MODERN ECONOMIC HISTORY. *Mrs. Davies*. Problems of economic development from the age of mercantilism to the present, with special reference to western Europe. 3 units. First semester. *MWF*, 9.

121a, 121b. AMERICAN CIVILIZATION. *Mr. Kemble*. A study of significant aspects of the political, economic, and cultural history of the United States since 1763 as reflected in a series of selected movements, institutions, events, and personalities. 3 units. *MWF*, 9.

130. MODERN MARITIME AND NAVAL HISTORY. *Mr. Kemble*. A study of the development of sea power and oceanic commerce from the 15th century to the present. 3 units. Second semester. *MWF*, 2:15.

146. HISTORY OF CALIFORNIA. *Mr. Kemble*. The economic, cultural, and political development of the region from its discovery and colonization to the present. 3 units. First semester. *MWF*, 2:15.

150. READING AND RESEARCH IN HISTORY. *Staff*. Individual programs of reading on significant historical topics or fields. Permission of the member of the department with whom the reading is to be done must be obtained prior to registration. May be repeated for credit. 2 to 4 units. Arranged.

165. REPRESENTATIVE SOCIETIES. *Mr. Gleason*. 5th century Athens, 13th century France, 16th century England, 19th century New England. A course for Seniors designed to integrate the total program. 3 units. (Omitted in 1960-61.)

For courses in Far Eastern History and Latin American and Spanish civilization see those listed under Oriental Affairs and Romance Languages.

The following courses are designed primarily for concentrators in History. Other students may be admitted with the permission of the instructor. It is intended to offer one pro-seminar in European and one in American History each year, but the subject studied will vary from time to time.

140. THE STUDY OF HISTORY. *Mr. Larnihan*. An introduction to the methods, techniques, schools, and philosophies of history. 3 units. First semester. *TTh*, 2:40-3:55.

160. PRO-SEMINAR IN EUROPEAN HISTORY. *Mrs. Davies*. 3 units. First semester. *F*, 1:15-3:05 and arranged.

170. PRO-SEMINAR IN AMERICAN HISTORY. *Mr. Kemble*. 3 units. Second semester, *MWF*, 8.

Courses of Instruction

190. HISTORICAL PROBLEMS AND INTERPRETATION. *Staff*. Consideration of major historical developments and some of the most significant works in European and American history. 3 units. Second semester. *F*, 1:15-3:05.

AVAILABLE AT HARVEY MUDD COLLEGE

103, 104. ECONOMIC HISTORY OF THE UNITED STATES. *Mr. Rae*. 3 units. *MWF*, 10.

AVAILABLE AT SCRIPPS COLLEGE

III-54a. THE FEDERAL UNION. *Mr. White*. The development of American civilization to the Civil War. 3 units. First semester. *MWF*, 10.

III-54b. THE AMERICAN NATION. *Mr. White*. The development of American civilization since the Civil War. 3 units. Second semester. *MWF*, 10.

III-117a. COLONIAL AMERICA, 1607-1763. *Mr. Adair*. 3 units. First semester. *MWF*, 11.

III-117b. THE AMERICAN RENAISSANCE. *Mr. White*. American intellectual and cultural history in the 19th century through the Civil War. 3 units. Second semester. *MWF*, 11.

III-165. HISTORY OF INDIA. *Mrs. Keddle*. 3 units. First semester. *TThS*, 10.

III-166. HISTORY OF THE MIDDLE EAST. *Mrs. Keddle*. 3 units. Second semester. *TThS*, 10.

AVAILABLE AT CLAREMONT GRADUATE SCHOOL

Courses open to qualified undergraduates by permission of the chairman of the department and the instructor.

224c. NATIONALISM AND SECTIONALISM IN THE UNITED STATES, 1820-1865. *Mr. Niven*. 4 units. First semester. *T*, 2-4.

225. THE UNITED STATES SINCE THE CIVIL WAR. *Mr. Campbell*. 4 units. Second semester. *Th*, 1:30-4.

International Relations

The concentration in International Relations is governed by a faculty committee representing the several departments offering courses required for the concentration, with Professor Olson of the Government Department as chairman.

Requirements and Recommendations for the Concentration:

Thirty units of upper division work are to be taken from the offerings listed below. Within this list, while some electives are allowed, a number of courses are specifically required, including six units dealing with one region of the world. Lower Division prerequisites for courses in the upper division should be met in the freshman and sophomore years.

Proficiency in at least one modern foreign language is required. This requirement is normally satisfied by completing one of the following courses: French 81a-81b; Spanish 101a, b; German 53a-53b, plus one semester of a third year course in German. In the case of Russian, Oriental, and other languages students are advised to consult with Mr. Olson as to requirements. Wherever possible foreign language study should be undertaken in the freshman year, but in any event the second year language course must be successfully completed by the end of the junior year. Those majors with already strong experience in a language may be excused from taking courses after an oral and written examination administered by a member of the appropriate department; this examination must be passed no later than April 15 of the junior year.

A Senior Paper involving intensive research in some aspect of international relations of special interest to the concentrator is to be submitted to the Secretary of the Committee by April 15 of the senior year. Concentrators are urged to make use of departmental reading courses in the fall of the senior year to do most of the reading and organizing of the paper. In order to encourage background reading in the summer, the Committee requires submission of a tentative title for the senior paper by May 15 of the junior year.

Under carefully defined conditions, the concentrator in International Relations may devote the junior year to study abroad. Consult Mr. Olson.

Honors Study in International Relations may be undertaken, preferably beginning in the junior year. Consult Mr. Olson.

The comprehensive examination consists of two written examinations, and an oral examination before two members of the Committee. Some part of the examination may be in the foreign language of the student's choice.

For specific descriptions of the courses listed below see respective departmental listings:

A. *Core courses:* (18 units required)

1. Government 151 Fundamentals of International Relations
2. Economics 123 International Economics
3. Economics 153 Economic Development *or* Anthropology
102, World Ethnography
4. Economics 195 Comparative Economic Systems *or* Government
125, Comparative Political Systems
5. Government 155 Conduct of American Foreign Affairs
6. Government 186 Seminar in International Relations

B. *Regional courses:* (6 units required in any one region)

European Area

Government 125, History 113a, b, 117b, 118, 160.

Courses of Instruction

Soviet Area

Economics 195; Government 126; History 114.

Latin-American Area

See offerings under Claremont Men's College and Claremont Graduate School.

Asian Area

Oriental Affairs 51, 103a, b, 104, 106.

Middle Eastern and African Areas

While Pomona does not at this time offer course work regarding these regions, a student may take up to six units of directed reading concerning Middle Eastern and/or African Affairs. Permission of the Committee and of the instructor is required.

- C. *Electives* to complete the upper division requirement may be selected from among many offerings in the Associated Colleges. The Committee especially recommends the following for concentrators:

Anthropology 108; History 113a, b.

AVAILABLE AT CLAREMONT MEN'S COLLEGE

Latin-American Politics P-123.

AVAILABLE AT SCRIPPS COLLEGE

III-106a. HISTORICAL BACKGROUND OF INTERNATIONAL RELATIONS.

III-106b. PROBLEMS IN INTERNATIONAL RELATIONS.

IV-140a, 140b. RELIGIONS OF THE WORLD. *Mr. Tapp*. Year course. *TThS*, 10.

AVAILABLE AT CLAREMONT GRADUATE SCHOOL

International Relations 263. Latin-American Problems.

Mathematics

Requirements for concentration: The basic courses in Mathematics are either (i) Mathematics 1a, b; 65a, b; and 125; or (ii) Mathematics 50a, b; and 125. In addition to these, the following courses are required: Mathematics 118, 119, 151a, b, and at least three more upper division units in the Department of Mathematics. An additional six units must be taken in upper division mathematics or selected from among Physics 151a, b and Astronomy 156a, b.

Students planning to do graduate work in mathematics should take Mathematics 152 and 196.

Mathematics 1a, b is normally prerequisite for all other work in the Department. However, students who have had trigonometry in high school may take an examination in mathematics on the Saturday preceding registration, and, if they make a sufficiently high grade, enroll in Mathematics 50a if they so desire.

1a, 1b. **INTRODUCTION TO COLLEGE MATHEMATICS.** *Staff.* While this course prepares students for work in the calculus, it is at the same time comprehensive enough to provide in itself a general mathematical background. It includes college algebra, trigonometry, and an introduction to analytic geometry and calculus. 3 units. *MWF, 9, 10, 11; TThS, 9.*

50a, 50b. **ANALYTIC GEOMETRY AND CALCULUS.** *Staff.* The standard integrated course in analytic geometry and calculus. Credit will not be given for both Mathematics 1a, b, and 50a, b. 3 units. *MWF, 11; TThS, 10.*

65a, 65b. **DIFFERENTIAL AND INTEGRAL CALCULUS.** *Staff.* The standard course in the theory and applications of the calculus. Prerequisite: Mathematics 1a, b. Credit will not be given for both Mathematics 50a, b and 65a, b. 3 units. *MWF, 8; TThS, 9.*

118. **HIGHER ALGEBRA.** *Mr. Jaeger.* Permutations, combinations, probability, binomial and multinomial theorems, summation of series, continued fractions, and other-algebraic topics. Prerequisite: Mathematics 65a or permission of the instructor. 3 units. First semester. *MWF, 8.*

119. **THEORY OF EQUATIONS.** *Mr. Jaeger.* The theory and solution of algebraic and transcendental equations; determinants and matrices. Prerequisite: Mathematics 65a or permission of the instructor. 3 units. Second semester. *MWF, 8.*

125. **INTERMEDIATE CALCULUS.** *Staff.* Elements of solid analytic geometry; infinite series, partial differentiation, multiple integration. Applications. Prerequisite: Mathematics 50a, b or 65a, b. 3 units. First semester. *MWF, 10, 11; TThS, 9.*

150. **VECTOR ANALYSIS.** *Staff.* Algebra and calculus of vectors; divergence and Stokes' theorems. Prerequisite: Mathematics 125. 3 units. Second semester. *MWF, 10, 11.*

151a, 151b. **DIFFERENTIAL EQUATIONS.** *Staff.* A general course in theory and applications. Mathematics 125 must precede or accompany this course. 3 units. *MWF, 10; TThS, 10.*

152a, 152b. **ADVANCED CALCULUS.** *Mr. Cooke.* Introduction to logic; limits, sequences, continuity, improper integrals, uniform convergence, Taylor and Fourier series, partial derivatives, and multiple integrals. Prerequisite: Mathematics 125. 3 units. *TThS, 9.*

192. **NUMERICAL ANALYSIS.** *Mr. Jaeger.* Numerical solution of algebraic, transcendental, and differential equations; approximate integration; introduction to the theory of games; basic principles of programming with a digital computer. Mathematics 151a must precede or accompany this course. 3 units. First semester. *TThS, 8.*

193. **COMPLEX VARIABLE.** *Mr. Hamilton.* Algebra and calculus of complex variables; infinite series; Cauchy's Theorem and consequences, including Taylor and Laurent expansions and classification of singularities; entire functions;

meromorphic functions. Prerequisite: Mathematics 125 and 151a. 3 units. (Offered in alternate years; not offered in 1960-61.)

194. MATHEMATICAL STATISTICS. *Mr. Hamilton*. The mathematical bases of statistical theories and methods, with applications from various fields. Mathematics 125 must precede or accompany this course. 3 units. (Offered in alternate years; not offered in 1960-61.)

196. MODERN ALGEBRA. *Mr. Tolsted*. Integral domains, groups, fields, vector spaces and matrices. Prerequisites: Mathematics 118 and 125. 3 units. First semester. *TThS*, 10. (Offered in alternate years; offered in 1960-61.)

197. NUMBER THEORY. *Mr. Jaeger*. Properties of integers, linear and quadratic congruences, and algebraic numbers. Prerequisite: Mathematics 65a, b. 3 units. Second semester. *TThS*, 8. (Offered in alternate years; offered in 1960-61.)

198a, 198b. SELECTED TOPICS IN HIGHER MATHEMATICS. *Mr. Cooke, Mr. Jaeger, Mr. Tolsted*. Special work or reading not included in the preceding is available in this course to students of proved ability. Prerequisite: Departmental approval. 1 to 3 units. Arranged.

AVAILABLE AT HARVEY MUDD COLLEGE

121. GEOMETRY. 3 units.

132. NUMERICAL ANALYSIS. Prerequisite: Mathematics 101 or consent of instructor. 3 units.

152. COMPLEX VARIABLE THEORY. Prerequisite: Mathematics 101 or consent of instructor. 3 units.

161. REAL VARIABLE THEORY. Prerequisite: Mathematics 112 or consent of instructor. 3 units.

171. TOPOLOGY. Prerequisite: Mathematics 112 or consent of instructor. 3 units.

PRE-ENGINEERING

A student may take from one to four units in each of the following courses.

All courses numbered above 100 require instructor's approval for enrollment.

Study and drawing period daily, 1:15-4:00. Lecture arranged.

7. ENGINEERING DRAWING. *Mr. Grimm*. A basic engineering drawing course, including lettering, projection, visualization, and working drawings. 1 to 4 units. Arranged.

40. DESCRIPTIVE GEOMETRY. *Mr. Grimm*. The theory and principles of projection, including points, lines, plane sections, and development of surfaces. Prerequisite: Two units of engineering drawing. 1 to 4 units. Arranged.

101. ARCHITECTURE. *Mr. Grimm*. Basic work in architectural design including the development of a complete set of working drawings. 1 to 4 units. Arranged.

102. **MECHANISMS.** *Mr. Grimm.* Practice in the graphical solution of machine mechanisms. 1 to 4 units. Arranged.

103. **TOPOGRAPHY.** *Mr. Grimm.* Practice in topographic mapping and model construction. 1 to 4 units. Arranged.

AVAILABLE AT CLAREMONT SUMMER SESSION

60. **SURVEYING.** *Mr. Grimm.* A basic surveying course. 3 units. Arranged.

Military Science

Pomona College, in conjunction with Claremont Men's College, maintains a General Military Science Unit, Senior Division, of the Army Reserve Officers' Training Corps, established under the National Defense Act. The primary purpose is to provide officers for the United States Army Reserve; it also constitutes a source of junior officers for the Regular Army. ROTC graduates are commissioned in the Army branch for which they are individually considered best qualified. Graduates of the program who enter active military service for two years have a four-year obligation in the Reserve (total of six years). Those who are given six months of active duty for training, remain in the Ready Reserve until the eighth anniversary of the receipt of their commissions. Students who demonstrate special proficiency are eligible for appointment in the Regular Army through the Distinguished Military Graduate Program. Usually Regular Marine Corps commissions are also optionally available.

The General Military Science ROTC program consists of subjects general in scope so that the Department of the Army may appoint second lieutenants in combat, administrative, and technical services as required.

The courses include both classroom and out-of-doors instruction.

The instructors in the department are officers of the United States Army assigned for duty at the college by the Department of the Army. Modern weapons, equipment and instructional material are furnished to give the students practical experience.

The four-year program is divided into the Basic Course and the Advanced Course. Enrollment in the Basic Course is on a voluntary basis. Enrollment in the Advanced Course is on a selective basis. After a student has enrolled in either course, the completion of the second year of that particular course becomes a prerequisite for graduation.

Normally, the four-year program for an incoming freshman without prior military service or ROTC training is:

Freshman Year	MS I (Basic)
Sophomore Year	MS II (Basic)
Junior Year	MS III (Advanced)
Summer Vacation	ROTC Summer Camp (6 weeks)
Senior Year	MS IV (Advanced)
Graduation	Appointment as 2nd Lieutenant United States Army Reserve

The Basic Course is open to all physically fit male students who are United States citizens. ROTC enrollment does not interfere with participation in sports by students nor in other college activities. Uniforms, equipment and texts for the courses are issued to the students without charge.

Previous military service furnishes a basis for credit for Basic Course instruction according to the individual's length of service, type of training, and honorable discharge from the Armed Forces of the United States.

Enrollment in the Advanced Course (MS III and MS IV) is limited to selected members who have completed the Basic Course, or have received equivalent credit. A student entering the Advanced Course must sign an agreement with the United States Government that he will devote five (5) class hours per week to Military Science during the academic year, that he will attend an ROTC Summer Camp of six (6) weeks duration between his MS III and MS IV courses, and that he will accept an appointment as a second lieutenant in the United States Army Reserve, if tendered. In consideration of this Advanced Course agreement, students receive cash allowances from the Government equivalent to a scholarship of about \$640.00.

After the completion of one academic semester, regularly enrolled students may sign a "deferment agreement." They are then deferred from induction under the UMT&S Act until completion of both their ROTC and academic courses provided they remain in good standing. A college freshman, eligible for MS II or III because of previous training, if selected for enrollment and authorized a period of nonattendance, may be deferred.

1A-1b. MILITARY SCIENCE I (Basic). *Staff.* American Military History; Army and ROTC Organization; Individual Weapons and Marksmanship; Drill and Leadership. 2 units (of which $\frac{1}{2}$ unit is non-academic and is substituted for physical education activity). Class *TTh*, 8, 9 or 10; and drill *M*, 1:15-2:05.

52a-52b. MILITARY SCIENCE II (Basic). *Staff.* Map and Aerial Photograph Reading; Army Mission in National Defense; Small Unit Tactics; Drill and Leadership. 2 units (of which $\frac{1}{2}$ unit is non-academic and is substituted for physical education activity). Class *TTh*, 8, 9, 10; and drill *M*, 1:15-2:05.

103a-103b. MILITARY SCIENCE III (Advanced). *Staff.* Leadership; Branches of the Army; Military Teaching Methods; Communications; Camp Orientation; Drill and Leadership. 3 units. Class *MWF*, 8 or 9; drill *M*, 1:15-2:05.

MILITARY SCIENCE ROTC SUMMER CAMP (Advanced). *Camp Staff.* Tactics; Leadership; Marksmanship and Weapons; Marches and Bivouacs; Drills and Parades; Physical Training and Athletics. Six weeks, between the third and fourth year. Conducted at Ft. Lewis, Washington.

154a-154b. MILITARY SCIENCE IV (Advanced). *Staff.* Command and Staff; Estimates and Orders; Military Intelligence; Supply, Evacuation; Training Management; U.S. in World Affairs; Motors; Troop Movements; Administration; Military Team; Military Justice; Officer Indoctrination; Drill and Leadership. 3 units. Class *MWF*, 8 or 9; drill *M*, 1:15-2:05.

Music

The Department of Music offers instruction and opportunity for musical performance both to concentrators in the field and to non-concentrators.

Courses open to non-concentrators: Music Appreciation (53), The Piano Sonatas of Beethoven (64), Theory (1, 2, 4), History and Literature (120, 121, 122, 123), Applied Music — vocal and instrumental. Group activities open to all students include College Choir (57), Orchestra (58), Band (59), Chamber Music (60), and the Glee Clubs. Qualified students may be admitted by special action of the Department to any course in music. Students likely later to concentrate in music are advised to take Elementary Theory (Music 1 and 2) immediately in order to avoid crowding their senior year programs.

Requirements for concentration: The concentration program is designed both for the pre-professional musician preparing for a career as teacher or performer and for the student who may have other vocational plans but wishes to major in music as an undergraduate. All concentrators are strongly urged to acquire a reading knowledge of at least one foreign language.

Concentrators are expected to attend all concerts and recitals presented by the department.

The following courses are required of all students concentrating in music: Elementary Theory (1), Elementary Ear Training, Sight Singing, and Keyboard Harmony (2), Intermediate Theory (55), Intermediate Ear Training, Sight Singing, and Keyboard Harmony (56), Advanced Theory (107), and the two-year sequence in the History of Musical Style (120, 121, 122, 123).

In addition to the required courses listed above, one of the following areas of concentration is required:

Applied Music: Music 111, 161, Senior Recital, and at least 4 units of Group Activities.

Composition: Orchestration (113), Free Composition (158), and at least 4 units of Group Activities.

General Music: A choice of any of the offerings of the Department that will include a minimum of 4 units of Applied Music, 8 units of Group Activities, and 6 units of Upper Division credit.

Secondary School Music: Choral Conducting (117), Instrumental Conducting (118), Rudiments in the Playing of Orchestral and Band Instruments (119), Orchestration (113), 4 units each in piano and voice (or equivalent), and work in Choir, Band, or Orchestra. In conjunction with the Claremont Graduate School, Pomona College offers a five-year program in which music majors who intend to teach in the public schools may meet the requirements for the General Secondary Credential. Such students will normally elect Secondary School Music as their area of undergraduate concentration. All students preparing for the teaching credential should consult with the Claremont Graduate School about the state requirements as early as possible.

Transfer students. Students transferring from other institutions as juniors should take Elementary Theory (1, 2) or its equivalent before coming to Pomona. They will be given a theory placement test to determine their proper course assignment and their transfer credit from previous college theory study.

THEORY, HISTORY, AND LITERATURE

1a-1b. **ELEMENTARY THEORY.** First semester: *Mrs. Briggs, Mr. Loucks*; second semester: *Mr. Kohn, Mr. Loucks*. Diatonic harmony and simple, free counterpoint with emphasis on original work in small forms. Prerequisite: ability to read music and play an instrument. Must be accompanied by 2a-2b. 3 units. *MWF, 11 or 1:15.*

2a-2b. **ELEMENTARY EAR TRAINING, SIGHT SINGING, AND KEYBOARD HARMONY.** *Mr. Blanchard, Mr. Loucks*. Practical application of the material of 1a-1b. 2 hours, 1 unit. *MF, 10; TTh, 10.*

4a-4b. **MATERIALS OF MUSIC.** *Miss Smith*. Basic theory for the layman: melody, harmony, counterpoint, rhythm, form. Study of significant styles. Ability to read music important. 3 units. *MWF, 10.*

53a-53b. **INTRODUCTION TO MUSIC.** *Mr. Sherman*. A survey of the principal periods in music history, with detailed study of representative works drawn from the symphonic, operatic, concerto, and chamber music literature. No previous musical experience required. 2 units. *MW, 2:15.*

55a-55b. **INTERMEDIATE THEORY.** *Mr. Kohn*. Advanced harmony and further work in counterpoint. Original work in small forms, with emphasis on the styles of Bach, Mozart, Beethoven, and the Romanticists. Must be accompanied by 56a-56b. Prerequisite: Music 1 and 2. 3 units. *MWF, 11.*

56a-56b. **INTERMEDIATE EAR TRAINING, SIGHT SINGING, AND KEYBOARD HARMONY.** First semester: *Mrs. Briggs*; second semester: *Mr. Russell*. Practical application of the material of 55a-55b. 2 hours, 1 unit. *M, 2:15 and F, 1:15; TTh, 1:15.*

60a, 60b. **CHAMBER MUSIC.** *Mr. Fiske*. A study of important chamber music literature from the 17th century to the present day through performance and analysis. Course also includes historical study of the works performed. Open only to advanced instrumentalists able to participate in performance. Permission of instructor required. The course may be repeated for credit. 2 units. *M, 1:15-3:05, and arranged.*

64. **THE PIANO SONATAS OF BEETHOVEN.** *Mr. Sherman*. Form and substance of the great cycle seen as the embodiment of both classical and romantic outlooks, illustrated by live performances. Open to non-concentrators. 2 units. Second semester. *MW, 3:15.*

107a-107b. **ADVANCED THEORY.** *Mr. Loucks*. Two and three part writing in contrapuntal forms: experience in free composition. Prerequisite: Music 55 and 56. 3 units. *MWF, 8.*

113a-113b. ORCHESTRATION AND INSTRUMENTATION. *Mr. Blanchard*. Scoring for orchestra, band, and vocal groups. Opportunity for public performance of outstanding work. Prerequisite: Music 55 and 56. 3 units. Arranged.

117. CHORAL CONDUCTING. *Mr. Russell*. Technique of conducting, repertoire, score analysis, rehearsal planning, chorus building. Prerequisite, choral experience and demonstration of sufficient ability in sight-singing and piano. Permission of instructor required. 2 units. First semester. (Offered in alternate years; not offered in 1960-61.)

118. INSTRUMENTAL CONDUCTING. *Mr. Fiske*. A course specifically designed for students working for the State Music Credential. Baton technique, beat formation in all rhythms, score reading, rehearsal problems, repertoire. Permission of instructor required. 2 units. Second semester. (Offered in alternate years; not offered in 1960-61.)

119a, 119b. RUDIMENTS IN THE PLAYING OF ORCHESTRAL AND BAND INSTRUMENTS. *Miss Smith, Mr. Blanchard*. A course designed to give the student a knowledge of the fundamentals of wind and string instruments through study and practice. First semester: strings; second semester: winds. 2 units. *TTh*, 1:15. (Offered in alternate years; offered in 1960-61.)

The following four courses (120, 121, 122, 123) comprise a two-year sequence in the history of musical style. Study by formal analysis, class performance, and guided listening, of a repertoire selected to exemplify the respective periods stylistically and chronologically, with supplementary readings in the basic works of history and reference. Permission of the instructor required for non-concentrators. Concentrators must take the sequence in order, one course per semester.

120. MUSIC OF THE MIDDLE AGES AND THE RENAISSANCE. *Mr. Kohn*. 3 units. First semester. *MWF*, 9.

121. MUSIC OF THE BAROQUE AND PRE-CLASSICAL PERIODS. *Miss Smith*. 3 units. Second semester. *MWF*, 9.

122. MUSIC OF THE CLASSICAL PERIOD AND THE 19TH CENTURY. *Mr. Fiske*. 3 units. First semester. *TThS*, 9.

123. MUSIC OF THE 20TH CENTURY. *Mr. Loucks*. 3 units. Second semester. *TThS*, 9.

158a-158b. FREE COMPOSITION. *Mr. Kohn*. Studies in the elements of contemporary techniques, and original work intended to develop the student's sense of structure and style. Permission of the instructor required. 3 units. Arranged.

191a-191b. PROGRAM PLANNING AND INTERPRETATION. *Staff*. Planning and performance of the Senior Recital. Open only to music majors who have passed the upper division qualifying examination in applied music. 4 units (2 units in semester preceding recital and 2 units in semester of recital, or 4 units in recital semester only). Credit granted only upon completion of recital. Arranged.

AVAILABLE AT SCRIPPS COLLEGE

II-69. NINETEENTH CENTURY MUSIC. *Mr. Collins*. Year course. *TTh*, 1:15-2:45.

II-170. CONTEMPORARY MUSIC. *Mr. Collins*. Prerequisite: II-69 or Music 55a, b, at Pomona. Year course. *TTh*, 3:15-4:45.

GRADUATE STUDY IN MUSIC

The Claremont Graduate School offers work leading to the Master of Arts degree with majors in Applied Music, Music History, Composition, and Music Education. Courses are also given which fulfill the California requirements for a general secondary credential with a major in Music.

GROUP ACTIVITIES

Open to all students in the college, subject to the following regulations: (1) permission of the instructor is required for Orchestra (58) and Band (59), (2) not more than two group activities may be taken simultaneously for credit, and (3) a total of not more than 16 units of credit for group activities may be counted toward the Bachelor of Arts degree.

57a, 57b. COLLEGE CHOIR. *Mr. Russell*. The study of classic and contemporary choral music through rehearsals leading to public performance. All students are eligible for the Choir, but continued membership is contingent upon satisfactory performance in a singing test held in October on music practiced during the opening weeks of the semester. New members admitted in first semester only. Fee to cover cost of music, \$2.00. 1 unit. May be repeated for credit. *MTWF*, 12:30-1:05; *Th*, 11:30-12:20. (Women do not meet on *T*; men do not meet on *M*.)

58a, 58b. ORCHESTRA. *Mr. Fiske*. A study of major works of orchestral repertoire and application of the principles of orchestral routine through public performance. Two periods of attendance weekly. Additional sectional rehearsals at option of director. The course may be repeated for credit. 1 unit. *TTh*, 4:15.

59a, 59b. BAND. *Mr. Russell*. First semester: Football Band; second semester: Concert Band. 1 unit. May be repeated for credit. First semester: *MW*, 4:15; second semester: *Th*, 7-9 p.m.

MEN'S AND WOMEN'S GLEE CLUBS. *Mr. Russell*. The Glee Clubs offer opportunity for performance in a small extra-curricular ensemble, both on and off campus. New members admitted by tryout only, at the opening of the college year. All students are eligible. Normal schedule: two rehearsals weekly. No credit.

APPLIED MUSIC

Study in Applied Music is open to all students. It may be taken either with credit or without, subject to the following provisions:

General. All students must pass qualifying examinations to establish eligibility for credit. Credit of 1 unit per semester is given for one private lesson weekly, 2 units per semester for two private lessons weekly. All private lessons are one-half hour in length. No credit is given for elementary study. No credit is given for work in Applied Music taken elsewhere.

Non-concentrators. Non-concentrators become eligible for a maximum of 4 units of Lower Division credit by passing the Lower Division qualifying examination. For more than 4 units of Lower Division credit they must take Elementary Theory (1) and Elementary Ear Training, Sight Singing, and Keyboard Harmony (2), or Materials of Music (4), either preceding or accompanying the additional work in Applied Music. Intermediate Theory (55) and Intermediate Ear Training, Sight Singing, and Keyboard Harmony (56) must precede or accompany all work for Upper Division credit.

Concentrators. Music 1 and 2 must precede or accompany all credit study by concentrators in music. Music 55 and 56 must precede or accompany all work for Upper Division credit. Concentrators in Applied Music are required to take two lessons per week in their major subject and to appear frequently in recitals.

Qualifying examinations. Students working for credit in Applied Music are enrolled in two categories: Lower Division (Music 11, 61), and Upper Division (Music 111, 161). The passing of a qualifying examination is required for entrance into either category. These examinations are normally given at the beginning of each semester. Arrangements for the examination should be made through the Applied Music instructor. Printed information concerning the qualifying examinations may be obtained at the Music Department office.

Limit of credit toward degree. A total of not more than 16 units of Applied Music may be counted toward the Bachelor of Arts degree, normally to comprise 8 units in Lower Division and 8 in Upper Division. Students not sufficiently advanced to qualify for Upper Division credit may count a total of not more than 12 units of Lower Division credit. All Applied Music study, whether for credit or not, is recorded on the student's college transcript.

II. APPLIED MUSIC, Freshman level.

61. APPLIED MUSIC, Sophomore level.

III. APPLIED MUSIC, Junior level.

161. APPLIED MUSIC, Senior level.

VOICE, *Mrs. Briggs, Mr. Pilon, Mrs. Houghton.*

ORGAN, *Mr. Blanchard.*

PIANO, *Mr. Kohn, Mr. Sherman, Mr. Pierce, and Staff.*

VIOLIN AND VIOLA, *Mr. Fiske.*

VIOLONCELLO, *Miss Jean.*

HARP, *Mrs. Remsen.*

FLUTE, *Mr. Stevens.*

OBOE, *Mrs. Geller.*

CLARINET, *Mr. Bloch.*

FRENCH HORN, *Mr. Pyle.*

TRUMPET, TROMBONE, *Mr. Tyler.*

Fees for private instruction and practice rooms are listed on pages 37 and 38.

While applied music instruction is offered on a semester basis, students may begin lessons at any time. However, a late registration fee will be charged after the first four weeks of any semester to defray the cost of the clerical expenses involved in making the change.

Oriental Affairs

A student concentrating in Oriental Affairs must take Oriental Affairs 51 and 52a-b. Twenty-four hours of upper division work are required. These hours should be selected from the following courses: Oriental Affairs 103, 104, 105, 106, 111, 123, 140, 160, 191; Art 117a, b; Philosophy 126.

51. THE CULTURAL LEGACIES OF EAST ASIA. *Mr. Ch'en*. A survey of the humanistic achievements of China and India, and their diffusion in other lands in East Asia. 3 units. First semester. *MWF, 10*.

52a-52b. INTRODUCTION TO THE CHINESE LANGUAGE. *Mr. Ch'en*. A course for beginners in the Chinese language, with emphasis on the analysis of written characters, translation and reading of simple texts. 3 units. *TThS, 10*.

103a, 103b. HISTORY OF CHINA. *Mr. Ch'en*. General survey of China's cultural history. The complexities of the problem of present day China in the light of her ancient cultural heritage. 3 units. *MWF, 9*.

104. READINGS IN ASIAN LITERATURE. *Mr. Ch'en*. A study of outstanding Asian literary works in English translation with the aim of a deeper appreciation of Oriental life and thought. 3 units. Second semester. *MWF, 10*.

105. CONTEMPORARY EASTERN ASIA. *Mr. Ch'en*. Introduction to the historical background and current problems of China, Japan, Korea, and Southeast Asia. 3 units. First semester. (Omitted in 1960-61.)

106. CONTEMPORARY SOUTHERN ASIA. *Mr. Goodall*. Introduction to the historical background and current problems of India, Pakistan, Ceylon, Burma, and the Himalayan states. 3 units. Second semester. (Omitted in 1960-61.)

111. HISTORY OF JAPAN. *Mr. Ch'en*. The evolution of Japanese and Korean cultural, social, economic, and political institutions since prehistoric times. 3 units. First semester. (Omitted in 1960-61.)

123. EASTERN ASIA IN THE NINETEENTH CENTURY. *Staff*. Traditional patterns of life and institutions in China and Japan, and to a lesser extent also of Korea, Siberia, and Southeast Asia. The impact of the West upon those countries. 3 units. (Omitted in 1960-61.)

140. HISTORY OF CULTURAL RELATIONS BETWEEN CHINA AND THE OCCIDENT. *Mr. Ch'en*. A rapid survey of the religious, intellectual, literary, and artistic relations and interchanges between China and the Western World from Greco-Roman times to the middle of the nineteenth century. 3 units. *MWF, 10*. (Omitted in 1960-61.)

160. HISTORY OF ASIAN DIPLOMACY. *Mr. Goodall*. Diplomatic relations of the Western Powers with Asian countries. 3 units. First semester. *MWF, 11*. (Omitted in 1960-61.)

191. TOPICS IN EAST ASIAN CULTURAL HISTORY. *Mr. Ch'en*. Lectures and discussions on topics chosen from the following: literature, drama, art theory and evolution of ideas. 3 units. Second semester. (Omitted in 1960-61.)

195. READINGS IN ORIENTAL AFFAIRS. *Staff*. Prerequisite: one course in Oriental Affairs and permission of instructor. 2 or 3 units. Each semester. May be repeated for credit. Arranged.

EUROPE AND ASIA. For description see History 2.

ORIENTAL PHILOSOPHY. For description see Philosophy 126.

ASIAN ART. For description see Art 117a, 117b.

AVAILABLE AT SCRIPPS COLLEGE

III-165. HISTORY OF INDIA. *Mrs. Keddie*. First semester. *TThS*, 10.

III-166. HISTORY OF THE MIDDLE EAST. *Mrs. Keddie*. Second semester. *TThS*, 10.

AVAILABLE AT CLAREMONT GRADUATE SCHOOL

205a, 205b. HINDI. *Mr. Ruyter*. 3 units. Arranged.

257. FOREIGN RELATIONS IN EAST ASIA. *Mr. Gould*. 4 units. Second semester. Arranged.

261. POLITICAL AND ECONOMIC DEVELOPMENT IN SOUTH ASIA. *Mr. Goodall*. 4 units. First semester. Arranged.

264. ISLAMIC CIVILIZATION. *Mr. Alich*. 3 units. First semester. Arranged.

Philosophy

Distribution Requirement: Either Philosophy 50 and one course from among Philosophy 51, 52, 53, 54, 119, 120, 121, 122; or two courses from among the Philosophy 110-114 series.

Concentration: Twenty-four units of upper division work, including three courses from the Philosophy 110-114 series. Upon approval, up to six units of upper division work in a related field may be counted toward the Philosophy major. Mathematics 1 and Philosophy 116 are strongly recommended. Those intending to do graduate work should acquire a reading knowledge of both French and German as early as possible.

Honors Study: Philosophy concentrators are urged to consider Honors Study. To work out the details of a specific program, consult page 87 of the Catalog and see a member of the department.

Joint Concentrations:

Philosophy and Classics. Classics 51 or 57 or equivalent (two or more years of Greek or of Latin at secondary school level) is the lower division requirement. Students electing the concentration must choose from each of the groups below at least the number of units specified.

Group I (15 units): Classics 101, 117, 182, or Scripps College equivalent.

Group II (15 units): Two courses from among the Philosophy 110-114 series, and three additional upper division courses in Philosophy.

Philosophy and History. History 1 and 51 are the lower division requirements. Students electing the joint concentration must choose from each of the groups below at least the number of units specified.

- Group I (9 units): History 140, 190, and one pro-seminar.
- Group II (6 units): History 101 or 102 or 103a or 103b or 107a or 108.
- Group III (6 units): History 107b or 109 or 110 or 113a or 113b.
- Group IV (15 units): Two courses from the Philosophy 110-114 series, and three additional upper division courses in Philosophy.

The comprehensive examination will consist of three parts: the general History examination, one subject field in History selected by the student, and the general History of Philosophy examination, which will take into consideration the additional upper division work done in Philosophy.

Philosophy and Literature. English 51 and 52 are the lower division requirements. Students electing the joint concentration must choose from each of the four groups below at least the number of units specified.

- Group I (6 units): English 153 or 155 or 156 or 171.
- Group II (9 units): English 131 or 132 or 133 or 134 or 161.
- Group III (6 units): English 125 or 126 or 127 or 160 or 162 or 163.
- Group IV (15 units): Two courses from the Philosophy 110-114 series, and three additional upper division courses in Philosophy.

Students in the joint concentration will be examined in both fields in the comprehensive examination at the end of the senior year.

Philosophy and Religion. Religion 1 and Philosophy 54 are the lower division requirements. Students electing the joint concentration must choose from each of the groups below at least the number of units specified.

- Group I (15 units): Religion 103, 111 or 116, 104 or 105, 122, and one additional upper division course in Religion.
- Group II (15 units): Two courses from among the Philosophy 110-114 series, and three additional upper division courses in Philosophy.

50. PROBLEMS OF PHILOSOPHY. *Staff.* Consideration of the function and method of philosophy, and typical problems in ethics, logic, theory of knowledge, philosophy of religion and metaphysics. 3 units. First semester: *MWF*, 9, 10; *MWF*, 11 (freshmen only); *TThS*, 9. Second semester: *MWF*, 11.

51. LOGIC AND SCIENTIFIC METHOD. *Mr. Beckner.* The elements of deductive and inductive reasoning with special emphasis upon scientific hypotheses, probability, definitions, and fallacies. 3 units. Second semester. *MWF*, 8.

52. TYPES OF ETHICAL THEORY. *Mr. Fogelin.* An examination of the main types of ethical theory, in terms of their ability to illuminate and aid in the solution of concrete moral problems. 3 units. Second semester. *TThS*, 9.

53. **PHILOSOPHY, CULTURE AND LANGUAGE.** *Mr. Jones.* The impact of the physical and social sciences on the traditional Western ethos is examined, and a reconstruction is attempted, based on a study of the nature of language and its relation to thought and reality. 3 units. Second semester. *MWF, 10.*

54. **PHILOSOPHY OF RELIGION.** *Mr. Sontag.* A study of the relationship of philosophy, theology, and religion, including the questions of God's existence, God's nature, the nature of man and the claims of Christianity. 3 units. Second semester. *TTh, 1:15-2:30.*

History of Philosophy series: Five semester courses, normally taken in sequence, designed to present the history of western philosophy through primary source readings, lectures and discussion.

110. **CLASSICAL PHILOSOPHY.** *Mr. Jones.* From the beginnings of philosophic thought to the start of the Christian period, including the Pre-Socratics, Plato, Aristotle, the Stoics and the Epicureans. 3 units. First semester. *MWF, 11.*

111. **MEDIEVAL PHILOSOPHY.** *Mr. Sontag.* From St. Augustine to Duns Scotus, including the Pseudo-Dionysius, Scotus Erigena, Anselm, Bonaventure and Thomas Aquinas. 3 units. Second semester. *TThS, 9.*

112. **MODERN PHILOSOPHY.** *Mr. Fogelin.* From the Renaissance to Hume, including Bacon, Descartes, Leibniz, Spinoza, Locke, and Berkeley. 3 units. Second semester. *MWF, 11.*

113. **THE NINETEENTH CENTURY.** *Mr. Fogelin.* A study of the philosophic thought of the 19th century, with special emphasis upon Kant, Hegel, Marx, Nietzsche, and J. S. Mill. 3 units. First semester. *TTh, 1:15-2:30.*

114. **CONTEMPORARY PHILOSOPHY.** *Mr. Beckner.* Philosophies of the 20th century, with special reference to Pragmatism, Positivism, Existentialism, and recent analytic philosophy. 3 units. First semester. *MWF, 9.*

116. **SYMBOLIC LOGIC.** *Mr. Fogelin.* Introduction to modern deductive logic. A formal system of logic is presented, and the application of logic to other fields, including traditional logic, is discussed. 3 units. First semester. *TThS, 10.*

119. **MYTH AND METAPHYSICS.** *Mr. Sontag.* Historical and systematic treatment of the major metaphysical views and their relation to the literature of mythology, including classical mythology, Plato, Freud, German romanticism and myth in theological thought. 3 units. First semester. *TThS, 9.*

120. **THEORY OF KNOWLEDGE.** *Mr. Fogelin.* A critical study of the nature of empirical knowledge, logic, and mathematics, including an examination of the modern methods of logical and semantic analysis. 3 units. Second semester. *TThS, 10.*

121. **VALUE THEORY.** *Mr. Fogelin.* An examination of classical and contemporary theories of value. The questions of the logical status of value judgments, and the place of reason in moral and aesthetic appraisal, will be emphasized. 3 units. (Omitted in 1960-61.)

122. PHILOSOPHY AND THE SOCIAL SCIENCES. *Mr. Jones*. A critical study of the basic metaphysical and epistemological presuppositions of the social sciences, including history. Among other matters considered are the function of theory in these fields, the nature of evidence, and the problem of "objectivity." 3 units. Second semester. *MWF*, 9.

126. ORIENTAL PHILOSOPHY. A study of some of the important thinkers and schools of oriental philosophy, and a comparison of oriental and western philosophical views and cultural ideals. 3 units. (Omitted in 1960-61.)

140. KIERKEGAARD AND EXISTENTIALISM. *Mr. Sontag*. An attempt to understand what modern Existentialism means as an approach to life, through a reading of Kierkegaard's writings, and by a comparison with Sartre and Nietzsche. 3 units. (Omitted in 1960-61.)

151. PHILOSOPHY AND POETRY. *Mr. Jones*. A study of four philosophical poets — Lucretius, Dante, Goethe, and T. S. Eliot. 3 units. (Omitted in 1960-61.)

152. HISTORY OF SCIENCE SINCE 1500. *Mr. Beckner*. A study of the development of scientific thought through an examination of selected topics in the history of mathematics and the natural sciences. 3 units. First semester. *MWF*, 10.

153. PHILOSOPHY OF SCIENCE. *Mr. Beckner*. An analysis of scientific theory and method, emphasizing such fundamental topics as concept formation, measurement, probability, induction, and the uses of mathematics. 3 units. Second semester. *MWF*, 10.

190. SENIOR RESEARCH PROJECT. *Staff*. Independent reading and study on a topic of the student's choice, culminating in a major research paper. The course may be repeated for a total of six units. 3 units. Each semester. Arranged.

HISTORY OF POLITICAL THOUGHT. See Government 182.

AVAILABLE AT SCRIPPS COLLEGE

IV-55. PHILOSOPHY OF RELIGION. *Mr. Greene*. Second semester. *MWF*, 10.

IV-57. LOGIC. *Mr. Barrett*. First semester. *MWF*, 11.

IV-156. SOCIAL AND POLITICAL PHILOSOPHY. *Mr. Barrett*. First semester. *MWF*, 10.

IV-158. SYMBOLS, VALUES AND STANDARDS. *Mr. Barrett*. Second semester. *MWF*, 10.

IV-159a, b. HISTORY OF MODERN PHILOSOPHY. *Mr. Greene*, *Mr. Barrett*. *MWF*, 11.

IV-161. PHILOSOPHY OF ART. *Mr. Greene*. First semester. *MWF*, 10. Open to qualified juniors and seniors by permission of the instructor.

Physical Education

A student is required to take one unit of Physical Education Activities per semester during his freshman and sophomore years, and one-half unit per semester during his junior and senior years.

PROFESSIONAL PREPARATION

Although the College does not offer a concentration in Physical Education, certain professional courses are offered for those students interested in the field, provided there is sufficient demand. Election of these courses, followed by a year of graduate work, may qualify the student for the General Credential with a major or minor in Physical Education. It may also qualify the student for further study in physical therapy, occupational therapy, and recreation. Interested students should confer with a member of the Physical Education Department during the freshman year.

In addition to the professional courses, 6 units of physical education activities are required. It is suggested that these be so selected as to give the individual opportunity for both technical skills and leadership training in a wide range of activities.

A non-credit Camp Counselor's training course for women is held throughout the year. The course aims to provide its members with experience and skills useful in summer camps, playgrounds, and other activities of community recreation. (Given when there is sufficient demand.)

THEORY

50. INTRODUCTION TO PHYSICAL EDUCATION. *Mr. Malan*. A consideration of the nature of the profession and related fields in health and recreation, including a study of professional leaders, publications, and opportunities available. 2 units. First semester. *TTh*, 8.

119a, 119b. (Women) METHODS OF TEACHING TEAM SPORTS. *Staff*. Analysis of techniques and methods of presenting team sports. Prerequisite: minimum skill in the following physical education activities: basketball, hockey, softball, speedball, volleyball. 2 units. (Offered in alternate years; not offered in 1960-61.)

125. ANALYSIS OF PLAY AND COMMUNITY RECREATION. *Miss Cawthorne*. The nature and function of play in meeting the physical, mental, emotional, and social needs of people of all ages in both physical education and leisure time pursuits. An analysis of the organization and administration of community recreation departments, programs, and leadership. 3 units. Second semester. (Offered in alternate years; not offered in 1960-61.)

126. PRINCIPLES OF HEALTH EDUCATION. *Mr. Sage*. A consideration of factors influencing physical and mental health including a survey of voluntary, governmental and school health programs and their implications for the individual

as a member of society. Prerequisites: Biology 2 and Psychology 51 or Sociology 51. 3 units. First semester. *MWF*, 8. (Offered in alternate years; offered in 1960-61.)

129. KINESIOLOGY. *Miss Cawthorne.* An analysis of joint and muscular mechanisms, and their relation to problems of bodily development and efficiency and the teaching of physical activities. Prerequisite: Zoology 137 or permission of instructor. 3 units. First semester. *MWF*, 8. (Offered in alternate years; offered in 1960-61.)

130a, 130b. THE HISTORY AND TEACHING OF DANCE. *Mrs. Hypes.* Analysis of the problems and techniques of teaching rhythms at the elementary or high school level. First semester: historical background of folk dance and methods of teaching elementary rhythms and folk dance. Second semester: Historical background and methods of teaching contemporary dance at the secondary school level. One hour lecture, two hours laboratory, each semester. 2 units. Lecture *M*, 10; laboratory *WF*, 10. (Offered in alternate years; offered in 1960-61.)

140a, 140b. INDIVIDUAL AND DUAL SPORTS. *Staff.* Analysis of the theories and techniques of teaching the activities of tennis, badminton, swimming, archery, and other physical education activities common to both men and women. Each semester. 2 units. *TTh*, 1:15. (Offered in alternate years; offered in 1960-61.)

152. PHYSICAL DEVIATIONS. *Miss Cawthorne.* Study of body mechanics and the causes, prevention, and correction of physical defects. Methods of examination, prescription of exercises. Prerequisite: 129 or permission of instructor. 3 units. Second semester. *MW*, 8; and laboratory *F*, 8-10. (Offered in alternate years; offered in 1960-61.)

154. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION. *Mr. Malan.* A study of Physical Education philosophy including the scientific bases and the historical development of the profession, the formulation of guiding principles, and the relation of those principles to current practice. 3 units. Second semester. (Offered in alternate years; not offered in 1960-61.)

191a, 191b. (Men) METHODS OF TEACHING ATHLETIC ACTIVITIES. *Staff.* A study of the theories and techniques used in teaching and coaching the activities of football, basketball, track and field, and baseball. Admittance by permission of the instructor. 2 units. (Offered in alternate years; not offered in 1960-61.)

MEN'S ACTIVITIES

Students engage in an elective program of physical education activities except as certain limits are imposed by medical and physical examinations and tests and by Department requirements. Freshmen are required to participate in an Orientation course. The course is designed to introduce freshmen to the program of physical activity at Pomona College, to provide opportunity for

group and self testing, and to present experiences in fundamental movement including emphasis on general physical development. In addition, students must demonstrate ability to swim and reasonable skill or experience in at least two individual sports.

The following physical education activities are carried on under supervision of the Department: archery, badminton, baseball, basketball, boxing, bowling, cross country running, dancing, fencing, football, golf, gymnastics, rugby, American Red Cross life saving, skiing, soccer, softball, swimming and diving, tennis, touch football, track and field athletics, tumbling, volleyball, water polo, weight training, and wrestling. Co-educational classes are sponsored also with the Women's Department. Fees as indicated are required each semester of those who select archery (\$1.50), fencing (\$7.00), golf (\$15.00), bowling (35¢ per line), badminton (\$1.00), square dance (\$6.50), skiing (\$25.00).

The Department conducts a competitive intramural program including sports in season.

The college program of intercollegiate athletics is an integral part of the program of Physical Education. No student is permitted to participate in the more strenuous forms of competition without a certificate from the College Physician that the individual is physically fit for such participation.

The student obtains credit in the required courses listed below by participation in activities selected in accordance with the principles set forth in the preceding paragraphs.

1a-1b. PHYSICAL EDUCATION ACTIVITIES. *The Staff.* Required Freshman year. $\frac{1}{2}$ unit. Arranged.

2a-2b. PHYSICAL EDUCATION ACTIVITIES. *The Staff.* Required of Freshmen not taking Military Science. $\frac{1}{2}$ unit. Arranged.

53a-53b. PHYSICAL EDUCATION ACTIVITIES. *The Staff.* Required Sophomore year. $\frac{1}{2}$ unit. Arranged.

54a-54b. PHYSICAL EDUCATION ACTIVITIES. *The Staff.* Required of Sophomores not taking Military Science. $\frac{1}{2}$ unit. Arranged.

105a-105b. PHYSICAL EDUCATION ACTIVITIES. *The Staff.* Required Junior year. $\frac{1}{2}$ unit. Arranged.

107a-107b. PHYSICAL EDUCATION ACTIVITIES. *The Staff.* Required Senior year. $\frac{1}{2}$ unit. Arranged.

WOMEN'S ACTIVITIES

Medical and physical examinations are given all entering students with subsequent posture tests. Physical activities are allowed or prescribed as the result of these examinations. Participation in a Fundamental Activity is required one semester of the freshman year. Students may have freedom of election in

other activities insofar as medical and physical examinations warrant, but must include by the end of the sophomore year one individual sport, and one semester of some form of dancing. The passing of a swimming achievement test is required for graduation. It should be completed by the end of the sophomore year.

Activity fees are charged for badminton and archery (\$1.50 semester), golf (\$15 semester), fencing (\$7 semester), social dancing (\$15 semester), riding (\$30 semester), bowling (35¢ a line), square dance (\$6.50 semester), tennis ball fee (\$2.50).

Six units of Physical Education Activities are required for graduation. One-half unit is credited for Fundamentals, which includes courses organized to teach the basic fundamentals of physical activity. The remaining 5½ units may be earned by participation in other activities.

Freshmen and sophomores must arrange their activities so that both classes do not fall on the same days.

FUNDAMENTALS: contemporary dance, body mechanics.

TEAM SPORTS: basketball, softball, speedball, hockey, volleyball.

INDIVIDUAL SPORTS: archery, badminton, tennis, golf, swimming, fencing, bowling, riding, riflery.

DANCING: contemporary, folk and square, social.

RECREATIONAL GAMES: table tennis, paddle tennis, etc.

11A-11B. FUNDAMENTALS AND OTHER ACTIVITIES. *The Staff*. Required freshman year. ½ unit. Arranged.

12A-12B. SPORTS OR DANCING. *The Staff*. Required freshman year. ½ unit. Arranged.

63A-63B. PHYSICAL EDUCATION ACTIVITIES. *The Staff*. Required sophomore year. ½ unit. Arranged.

64A-64B. PHYSICAL EDUCATION ACTIVITIES. *The Staff*. Required sophomore year. ½ unit. Arranged.

115A-115B. PHYSICAL EDUCATION ACTIVITIES. *The Staff*. Required junior year. ½ unit. Arranged.

117A-117B. PHYSICAL EDUCATION ACTIVITIES. *The Staff*. Required senior year. ½ unit. Arranged.

AVAILABLE AT CLAREMONT GRADUATE SCHOOL

224. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION. *Mr. Arce*. Required for teaching credential. 3 units. *Th*, 7-9. (Also offered at the Claremont Graduate School during Summer Session.)

Physics

Concentration Requirements: Lower division prerequisites are Physics 51, 52; Mathematics 50 or 65; Chemistry 1. Upper division requirements are Mathematics 151; Physics 101, 141, 142, 151 and at least 6 additional upper division units in physics.

Pre-professional Program: A student who plans to do graduate work should include with the requirements listed above 8 additional units in physics and 6 in mathematics, chosen in consultation with the adviser. He should also acquire a reading knowledge of German, French or Russian.

1a, 1b. INTRODUCTION TO PHYSICAL SCIENCE. *Mr. Fryer.* Intended for those wishing to obtain a knowledge of physics and related topics from the other physical sciences. The course includes the historical aspects of physical science with emphasis upon the method of science and the persons who have contributed to the present understanding. Illustrated by demonstrations and films. Fee \$5.00 each semester. 3 units. *MWF, 10.*

51a, 51b. GENERAL PHYSICS. *Mr. Miller.* Mechanics, heat, sound, light, electricity and magnetism, and an introduction to atomic physics. This course, together with Physics 52, is planned especially for those students who expect to continue studies in physics, chemistry, engineering or medicine. Prerequisite: Mathematics 1 preceding or 50 concurrently. 4 units. *TThS, 8*, and one discussion hour *Th, 9, 10; F, 9, 10, 11.*

52a, 52b. GENERAL PHYSICS LABORATORY. *Mr. Henke and Staff.* Methods of experimental analysis applied to the subjects treated in Physics 51. Physics 51 or equivalent must accompany or precede this course. Laboratory fee, \$6.00. 1 unit. *MTWTh or F, 1:15-4:05.*

101a, 101b. ATOMIC AND NUCLEAR PHYSICS. *Mr. Ogier.* An introduction to the experimental and theoretical foundations of atomic and nuclear physics. Prerequisites: Physics 51 and Calculus. 3 units. *TThS, 8.*

141a, 141b. ELECTRICITY AND MAGNETISM. *Mr. Fryer.* Electrostatics and electrodynamics, electrical circuit theory, electronics, and introductory electromagnetic field theory. Prerequisites: Physics 51, Mathematics 151 preceding or accompanying the course. 3 units. *MWF, 8.*

142a, 142b. ELECTRICAL MEASUREMENTS LABORATORY. *Mr. Fryer.* The first semester is concerned with direct-current measurements and the use of standard bridge circuits. The second semester emphasizes alternating-current circuits and electronic measurement techniques. Prerequisites: Physics 52, and 141 preceding or accompanying the course. Laboratory fee, \$6.00. 1 unit. *T or W, 1:15-4:05.*

151a, 151b. MECHANICS. *Mr. Henke.* Application of classical mechanics to the analysis of the motion of systems as applied to problems in physics and engineering. Prerequisites: Physics 51 and Mathematics 151 preceding or accompanying the course. 3 units. *TThS, 9.*

172a, 172b. **ELECTRONICS LABORATORY.** *Staff.* Advanced electrical measurements in microwaves, radiation detection and atomic and nuclear experiments. Prerequisites: Physics 142 and departmental approval. 1 unit. Arranged.

185. **PHYSICAL OPTICS.** *Mr. Ogier.* The nature of radiation as deduced from the analysis of interference, diffraction, polarization, dispersion and quantum optics. Prerequisites: Physics 51 and Mathematics 151. 3 units. First semester. *MWF, 9.*

186. **ELECTROMAGNETIC THEORY.** *Mr. Ogier.* Maxwell field theory with applications to the emission, absorption, scattering and dispersion of electromagnetic radiation. Classical electron theory and special relativity. Prerequisite: approval of instructor. 3 units. Second semester. *MWF, 9.*

192a, 192b. **ADVANCED PHYSICS LABORATORY.** *Staff.* Experimental study of selected physical problems with emphasis on modern techniques in optical, atomic and nuclear physics. Prerequisite: departmental approval. Laboratory fee, \$6.00. 1 unit. *Th, 1:15-4:05.*

195. **THERMODYNAMICS AND STATISTICAL MECHANICS.** *Mr. Henke.* The application of empirical thermodynamic reasoning and molecular theory to the analysis of the properties of matter. Prerequisites: Physics 51, Mathematics 151 or approval of the instructor. 3 units. First semester. *MWF, 11.*

196. **QUANTUM MECHANICS.** *Mr. Miller.* The Schroedinger equation and its application to various atomic and nuclear problems including various perturbation techniques, the phenomena of scattering, and an elementary consideration of relativistic quantum theory. 3 units. Second semester. *MWF, 11.*

199. **SELECTED TOPICS IN PHYSICS.** *Staff.* Special work in certain advanced subjects not treated in the other courses of the department is available to students of proven ability. Prerequisite: departmental approval. 1 to 3 units. Each semester. May be repeated for credit. Arranged.

Psychology

The Psychology Department offers two concentrations.

General Psychology: This concentration is designed as preparation for students planning further graduate training leading to careers in professional psychology, e.g., clinical psychology, industrial psychology, college teaching. Students will also find this concentration a useful background for the behavioral sciences, industrial relations, and generally speaking a liberal undergraduate foundation for other graduate professional training.

Satisfactory completion of the following courses is required: Psychology 102, 104, 192, 194a, b, plus seven additional hours of upper division courses. Six hours of the upper division concentration requirements may be satisfied by offering Philosophy 153, Mathematics 118, English 183a, 183b, Biology 112, Sociology 154.

Educational Psychology: This concentration is designed for students who plan a career in education. Its purpose is to give to the student a greater understanding of education as a future career in the liberal arts tradition. The concentration is coordinated with Claremont Graduate School interne and certification programs.

Satisfactory completion of the following courses is required: Psychology 106, 107, 108a, b, or 168, 170, 195-196; Education 155; Sociology 106 or 112; plus six additional units of upper division credit in Psychology.

Students planning to go on to graduate school are advised to have an adequate preparation in the physical sciences, and to acquire a reading knowledge of German and French.

Psychology 51 is a prerequisite for all other courses in the department except Psychology 102 and 171. Ordinarily, students will take 51 followed by an area course of their choice (e.g., industrial, child, social) in order to appreciate the application of the basic principles learned in 51.

51. INTRODUCTION TO PSYCHOLOGY. *Staff.* Fundamental principles of human behavior. Laboratory fee \$4.00. 4 units. First semester, *MWF, 10; TThS, 10;* laboratory section, *MWTh or F, 2:15-4:05 or T, 1:15-3:05.* Second semester, *TThS, 10;* laboratory section, *Th or F, 2:15-4:05.*

102. PSYCHOLOGICAL STATISTICS FOR BEHAVIORAL SCIENCES. *Mr. Runquist.* Descriptive and analytic statistical procedures including correlation, probability, and test of significance. (Credit will not be given for both Economics 57 and Psychology 102.) Laboratory fee \$10. 4 units. First semester. Lecture *TThS, 9;* laboratory *T or W, 2:15-4:05.*

104. INTRODUCTION TO EXPERIMENTAL METHODS IN BEHAVIORAL SCIENCES. *Staff.* Discussion and demonstration of methods of studying psychological problems and evaluating data. Laboratory experiments. Laboratory fee \$3.50. Prerequisite: Psychology 51 and 102 or permission of instructor. 4 units. Second semester. *TThS, 9;* laboratory *T, 2:15-4:05.*

105. PSYCHOLOGY WITH APPLICATION TO BUSINESS AND INDUSTRY. *Mr. Bell.* Discussion of principles of psychology with application to business, industry and government. 3 units. (Offered in alternate years; not offered in 1960-61.)

106. PSYCHOLOGY OF PERSONAL ADJUSTMENT. *Mr. Bach.* A consideration of the personal problems of living a normal life in a complex modern society. 3 units. Second semester. *F, 1:15-4:05.*

107. EDUCATIONAL PSYCHOLOGY. *Mr. Faust.* Practical applications of psychology to education. 3 units. Second semester. *MWF, 10.*

108a, 108b. CHILD PSYCHOLOGY. *Mr. Faust.* A survey of development and behavior of the young child. 3 units. *TTh, 9-11.*

117. PHYSIOLOGICAL PSYCHOLOGY. *Mr. Frederick.* Physiological and neural aspects of psychological functions. Permission of instructor required. 3 units. First semester. *T, 7:30-9:30 p.m.*

131. ABNORMAL PSYCHOLOGY. *Mr. Bell.* Problems of maladjustment, factors contributing to mental disorders, methods of diagnosis and therapy. 3 units. Second semester. *MWF, 10.*

154. SOCIAL PSYCHOLOGY. *Mr. Bell.* Examination of the psychological factors of group behavior, with special emphasis on language behavior, intra-group and inter-group communication. 3 units. First semester. *MWF, 10.*

155. INDIVIDUAL DIFFERENCES. *Mr. Bell.* A study of the measurement of individual differences and the theory of test construction. Application to education, industry, counseling and clinical situations. Psychology 102 or mathematical background is advisable. Laboratory fee \$5. 3 units. First semester. *MWF, 9.*

168. PSYCHOLOGY OF ADOLESCENCE. *Staff.* The study of later childhood and adolescence. Prerequisite: Psychology 108. 3 units. (Offered in alternate years; not offered in 1960-61.)

170. THEORIES OF LEARNING. *Mr. Faust.* Examination and evaluation of theories of learning, including current research and application of learning principles to human behavior. 3 units. Prerequisite: 12 units of psychology. First semester. *MWF, 10.* (Offered in alternate years.)

171. INTRODUCTION TO BEHAVIORAL THEORIES. *Staff.* An advanced seminar in the problems of theory construction and model constructs in all the behavioral sciences. Registration by permission only. 3 units. Second semester. Arranged.

172. SYSTEMS OF PSYCHOLOGY. *Mr. Bell.* A discussion of contemporary systems of psychology with special emphasis placed on Behaviorism, Gestalt Psychology, and Psychoanalysis. 3 units. (Offered in alternate years; not offered in 1960-61.)

173. THEORIES OF PERSONALITY. *Mr. Bell.* A critical examination and evaluation of current theories of personality. 3 units. Second semester. *MWF, 11.* (Offered in alternate years; offered in 1960-61.)

192. READING AND RESEARCH. *Staff.* Individual work on special topics. May be repeated for credit. Three hours are required of students who are concentrating in psychology. Either semester. Laboratory fee \$10. 1 to 3 units. *W, 1:15-2:05,* and arranged.

194a, 194b. SENIOR READING COURSE. *Staff.* A course designed to supplement and integrate the different courses offered to meet the concentration requirement in psychology and to prepare students for the comprehensive examination. Required of seniors who are concentrating in psychology. 3 units. *T, 1:15-4:05.*

195-196. RESEARCH SEMINAR IN EDUCATIONAL PSYCHOLOGY. *Staff.* 1 unit. *W, 3:15.*

AVAILABLE AT CLAREMONT MEN'S COLLEGE

P-190. SOCIAL PSYCHOLOGY. *Mr. Albrecht.* Prerequisite: Introductory Psychology. 3 units. First semester.

P-191. INDUSTRIAL PSYCHOLOGY. *Mr. Albrecht*. Prerequisite: Introductory Psychology. 3 units. First semester.

P-192. SMALL GROUP BEHAVIOR. *Mr. Albrecht*. Prerequisite: Introductory Psychology; Social Psychology desirable. 3 units. Second semester.

AVAILABLE AT SCRIPPS COLLEGE

IV-110. CHILD DEVELOPMENT. *Mrs. Jones*. Prerequisite: Elementary Psychology. Year course. *MWF, 11*.

IV-112. CHILD STUDY IN THE NURSERY SCHOOL. *Mrs. Jones*. Prerequisite: Elementary Psychology and IV-110 or equivalent, or may be taken concurrently with IV-110 by upperclassmen. Year course. *MW, 2:15* and three arranged hours in the Nursery School.

IV-114. NURSERY SCHOOL PROCEDURE. *Mrs. Jones*. Prerequisite: IV-112, or may be taken concurrently with IV-112 by seniors. Year course. *MW, 3:15-4:05* and three arranged hours in the Nursery School.

AVAILABLE AT THE CLAREMONT GRADUATE SCHOOL

203. HISTORICAL DEVELOPMENT OF PSYCHOLOGY. *Mr. Perkins*. First semester. 4 units. *Th, 7 p.m.*

211. SEMINAR IN PHYSIOLOGICAL PSYCHOLOGY. *Mr. Perkins*. Second semester. Prerequisite: neuro-muscular physiology or physiological psychology. 4 units. *W, 2-4*.

231. SEMINAR IN MOTIVATION. *Mr. Earl*. First semester. 4 units. *T, 7 p.m.*

239. SEMINAR IN SOCIAL PSYCHOLOGY. *Mr. Earl*. First semester. 4 units. *W, 4-6*.

Religion

Students planning to concentrate in Religion should take the following basic courses: Religion 1 and 65; History 1; Philosophy 50; and Philosophy 54. Twenty-four hours of upper division work, of which at least eighteen must be in the field of religion at Pomona or the other Associated Colleges, are required. Six hours of upper division work may be taken in related fields such as art, classics, English, education, government, history, music, philosophy, psychology or sociology.

CONCENTRATION IN RELIGION AND PHILOSOPHY: See Philosophy.

1a, 1b. THE HEBREW-CHRISTIAN HERITAGE. *Staff*. An introduction to its origins and intellectual developments up to the present day. First semester: general orientation and survey of biblical history and literature. Second semester: issues in Christian thought, both historical and contemporary. 3 units. *MWF, 9, 10; TThS, 9*.

65a, 65b. HISTORY OF CHRISTIAN THOUGHT. *Mr. Ferm*. A study of the major issues and thinkers in the history of Christianity. First semester: the dominant theological problems of Christianity from the New Testament to the end of

the Middle Ages. Second semester: the course of Christian thought from the Protestant Reformation to the present day. 3 units. *MWF*, 8.

103. INTERPRETATION OF CHRISTIAN BELIEFS. An exposition of the Christian faith with special consideration of the doctrines of God, Jesus Christ, human sin and salvation, providence, freedom, history, and the church. 3 units. First semester. (Omitted in 1960-61.)

104. CONTEMPORARY THEOLOGY. *Mr. Malcomson*. Reading and discussion of American and European writers reflecting varying interpretations of the Christian message for the modern world and its impact on contemporary thought. 3 units. First semester. *TThS*, 10.

105. ISSUES IN RELIGIOUS THOUGHT. *Mr. Ferm*. An examination of some recurring problems in theological discussion, such as the character of religious language, the relation of faith and reason, and conceptions of human nature and its fulfillment. 3 units. (Omitted in 1960-61.)

106. EASTERN AND WESTERN RELIGIOUS TRADITIONS. *Mr. Malcomson*. A consideration of the points of contact and possible communication, dealing chiefly with ideas of God in various world-faiths against the background of changing patterns of culture in our own time. 3 units. Second semester. *TTh*, 1:15-2:30.

111. THE FAITH OF ANCIENT ISRAEL. *Staff*. An examination of the major religious themes in the Old Testament: the nature and activity of God, the purpose and personality of man, the nature and consequence of Israel's sin, and the individual and corporate requirements for salvation. 3 units. (Omitted in 1960-61.)

116. LIFE AND TEACHINGS OF JESUS. *Mr. Malcomson*. A study of the New Testament records concerning Jesus, centering on interpretations of his life and the content of his teaching and its relevance for the modern day. 3 units. First semester. *TTh*, 1:15-2:30.

122. AMERICAN RELIGIOUS THOUGHT. A study of the influential thinkers and issues in the history of American theology. Attention will be given to the relation between American and European currents of thought. 3 units. Second semester. (Omitted in 1960-61.)

142. CHRISTIANITY AND MODERN CULTURE. *Mr. Ferm*. A study of certain historical and contemporary efforts to interpret the relation of Christian faith to cultural movements in the arts, sciences, and philosophy. 3 units. Second semester. *MWF*, 11.

160. CATHOLICISM AND PROTESTANTISM. *Mr. Ferm*. An examination of the theology and structure of Roman Catholic and Protestant churches, in both their original and traditional forms. Particular attention will be given to the American scene. 3 units. First semester. *MWF*, 11.

191a, 191b. ADVANCED READING IN RELIGION. *Staff*. A reading program for upper division students. Admission by permission of instructor. 3 units. Arranged.

PHILOSOPHY OF RELIGION. For description see Philosophy 54.

AVAILABLE AT SCRIPPS COLLEGE

IV-140a, 140b. THE RELIGIONS OF THE WORLD. *Mr. Tapp. TTh, 8*, and arranged hour.

Romance Languages and Literatures

Concentrators: A major in one Romance language is required to take a minimum of 24 units in courses numbered over 100. A major in Romance languages, 36 units.

French major: Prerequisite 51b; required 101, 120.

Spanish major: Prerequisite 51b; required 101, 120.

Romance Languages major: Prerequisite French 51b, Spanish 51b; required: French 101, 120; Spanish 101, 120.

Latin: Although not required, a knowledge of Latin is recommended, particularly for students who contemplate graduate work.

Final senior examinations: Every concentrator in the department is required to take general oral and written examinations in the appropriate Romance language as follows:

- 1) A one-hour oral examination to test the student's command of the language.
- 2) A three-hour essay examination on some phase of the culture to test the student's grasp of its civilization and his ability to write correct and effective language.
- 3) A three-hour written general examination on the literature.

Extra-curricular activities: Students may also participate in the Language Clubs. Women students may elect to reside in *La Maison Française* or *La Casa Hispánica* and enjoy the benefits of native speaking environment. Students resident in *La Maison Française* must be enrolled in French 51a-51b or a more advanced course; students resident in *La Casa Hispánica* must be enrolled in Spanish 51a-51b or a more advanced course.

Language Laboratory: In addition to three class periods, students enrolling in first and second year courses are required to take one 45-minute laboratory period per week. Students should sign up for the laboratory period of their choice at Room 13, Holmes Hall, on Thursday, Friday and Saturday of the opening week. Laboratory fee, \$2.00 per semester.

Language Placement: All students who have had foreign language training in Romance languages and who consider taking further work in the same language are required to consult the Department to determine at what level they should be placed.

Attention is called to the fact that the intermediate courses in French and Spanish meet lower Division Requirement 6.

FRENCH

Courses for concentration: Any courses numbered over 100. *Prerequisite:* French 51b or its equivalent. Of the upper division courses, 101 and 120 must be taken first.

1a-1b. **ELEMENTARY.** *Staff.* Essentials of grammar; written and conversational exercises. A cultural approach based on selected reading material. 1a, 3 units; 1b, 4 units. *MWF, 10, 11, 1:15; TThS, 9.* Laboratory arranged.

51a-51b. **INTERMEDIATE.** *Staff.* Second year college French. Intensive class reading of selected cultural and literary texts; outside reading related to individual interests. Grammar review and conversational practice. 51a, 3 units; 51b, 4 units. *MWF, 10, 11, 1:15; TThS, 9, 10.* Laboratory arranged.

81a, 81b. **ADVANCED.** *Mr. Leggewie.* Discussions in French based on readings designed to give insight into French culture. Review of significant grammar points. Oral and written reports. *Prerequisite:* French 51b or the equivalent. 3 units. *TTh, 1:15-2:30.*

UPPER DIVISION COURSES

French 51b or its equivalent is required for admission to all advanced courses, except French 130.

101a, 101b. **ADVANCED CONVERSATION AND COMPOSITION.** *Mr. Ehrmann.* A course designed to develop skill and accuracy in literary composition and oral expression. Required of majors. 3 units. *MWF, 9.*

120a-120b. **SURVEY OF FRENCH LITERATURE AND CIVILIZATION.** *Mr. Leggewie.* A general outline course in the history of French literature from its origin to modern times. 3 units. *MWF, 10.*

124. **LITERATURE OF THE NINETEENTH CENTURY.** *Mr. Pronko.* Romanticism and Realism. The development of poetry and the novel in 19th century France. 3 units. Second semester. *W, 1:15-3:05.*

125. **THE THEATRE OF THE NINETEENTH CENTURY.** *Mr. Pronko.* A study of the French Theatre from 1827 to 1914. 3 units. (Omitted in 1960-61.)

127. **MODERN FRENCH THEATRE.** *Mr. Pronko.* Study of representative playwrights of today with special emphasis on Claudel, Giraudoux, Sartre and Camus. 3 units. First semester. (Offered in alternate years; not offered in 1960-61.)

130. **THE CONTEMPORARY NOVEL.** *Mr. Leggewie.* Study of such outstanding writers as Gide, Mauriac, Proust, Sartre and Camus. Lectures in English, readings in original or translation. Permission of instructor required. 3 units. (Offered in alternate years; not offered in 1960-61.)

150. **CONTEMPORARY FRENCH POETRY.** *Mr. Leggewie.* Study of outstanding poets from Baudelaire to the present. 3 units. Second semester. (Offered in alternate years; not offered in 1960-61.)

153a, 153b. LITERATURE OF THE SEVENTEENTH CENTURY. *Mr. Ehrmann*. Intensive study of the great masters of the French classical age: Corneille, Molière, Racine. Lesser study of Descartes, Pascal, La Rochefoucauld and others. 3 units. (Offered in alternate years; not offered in 1960-61.)

156. LITERATURE OF THE EIGHTEENTH CENTURY. *Mr. Ehrmann*. A study of the Age of Enlightenment with particular emphasis on Montesquieu, Diderot, Voltaire and Rousseau. 3 units. First semester. *TTh*, 1:15-2:30.

190a, 190b. SPECIAL TOPICS. Seminar on a topic or theme in French literature. Permission of the instructor is required. 3 units. For 1960-61: First semester. *Mr. Pronko*. Topic: The Phenomenon of the Avant-Garde, 1896-1960. An investigation of the experimental writing from Jarry to Ionesco, its causes and purposes. *W*, 1:15-3:05. Second semester. *Mr. Ehrmann*. Topic: The Theme of the Absurd in Rabelais, Molière, Diderot and Camus. *TTh*, 1:15-2:30.

192. READING AND RESEARCH IN FRENCH. *Staff*. Open to majors capable of independent study to supplement advanced course work. Permission of instructor and departmental chairman required. May be repeated. 2-4 units. Each semester. Arranged.

ITALIAN

1a-1b. ELEMENTARY ITALIAN. *Mr. Pronko*. Essentials of grammar; written and conversational exercises. A cultural approach based on selected reading material. 1a, 3 units; 1b, 4 units. *MWF*, 11. Laboratory arranged.

81a-81b. ADVANCED ITALIAN. *Staff*. Conducted in Italian as far as possible. Extensive class and outside readings to serve as an introduction to Italian civilization. 81a, 3 units; 81b, 4 units. (Offered in alternate years; not offered in 1960-61.)

SPANISH

Courses for concentration: Any courses numbered over 100. Prerequisite: Spanish 51b or its equivalent. Of the upper division courses, 101 and 120 must be taken first.

1a-1b. ELEMENTARY. *Mr. Leggewie*. Essentials of grammar; written and conversational exercises. A cultural approach based on selected reading material. 1a, 3 units; 1b, 4 units. *MWF*, 11. Laboratory arranged.

51a-51b. INTERMEDIATE. *Mr. Baird*. Second year college Spanish. Intensive reading of selected cultural and literary texts; outside reading related to individual interests. Grammar review and conversational practice. 51a, 3 units; 51b, 4 units. *MWF*, 10; *TThS*, 10. Laboratory arranged.

81a, 81b. ADVANCED. *Mr. Young*. Advanced discussions in Spanish based on readings designed to give insight into Spanish culture. Review of significant grammar points. Oral and written reports. Prerequisite: Spanish 51b or the equivalent. 3 units. (Offered in alternate years; not offered in 1960-61.)

UPPER DIVISION COURSES

Spanish 51b or its equivalent is required for admission to all advanced courses.

101a, 101b. **ADVANCED CONVERSATION AND COMPOSITION.** *Mr. Baird.* A course designed to develop skill and accuracy in literary composition and oral expression. Required of majors. 3 units. *TTh*, 2:40-3:55.

120a-120b. **SURVEY OF SPANISH LITERATURE.** *Mr. Young.* A general outline course in the history of Spanish literature from its origins to modern times. 3 units. (Offered in alternate years; not offered in 1960-61.)

170. **CERVANTES.** *Mr. Young.* A study of the life and works of Cervantes with special attention to Don Quixote and its relation to European Literature. (Omitted in 1960-61.)

172. **THEATRE OF THE GOLDEN AGE.** *Mr. Baird.* Intensive class study of Lope de Vega, Ruiz de Alarcón, Tirso, and Calderón. 3 units. Second semester. *MWF*, 2:15-3:05.

175. **LITERATURE OF THE NINETEENTH CENTURY.** *Mr. Baird.* A study of romanticism and realism. Authors: El Duque de Rivas, Espronceda, Larra Galdós, Valera, and Alas. 3 units. First semester. *MWF*, 2:15-3:05.

180a, 180b. **THE GOLDEN AGE.** *Mr. Baird.* The Renaissance, the Baroque and the Neo-Classical periods in Spanish literature. Main topics: first semester, development of Spanish literary forms, chivalry, humanism, the picaresque, and the Mystics; second semester, balladry and the theatre. 3 units. (Omitted in 1960-61.)

190a, 190b. **CONTEMPORARY SPANISH LITERATURE.** *Mr. Young.* The Generation of '98, pre-Civil War figures, and significant authors of the present day. Main writers: Unamuno, Baroja, Valle-Inclán, Benavente, Ortega y Gasset, Juan Ramón Jiménez, Pedro Salinas, García Lorca. 3 units. (Offered in alternate years; not offered in 1960-61.)

192. **READING AND RESEARCH IN SPANISH.** *Staff.* Open to majors capable of independent study to supplement advanced course work. Permission of instructor and departmental chairman required. May be repeated. 2-4 units. Each semester. Arranged.

CIVILIZATION COURSES IN TRANSLATION

111a, 111b. **THE CIVILIZATION OF HISPANIC AMERICA.** *Mr. Young.* A survey of the cultural and historical development of Hispanic American civilization from pre-Colombian times to the present. 3 units. (Offered in alternate years; not offered in 1960-61.)

112a, 112b. **THE CIVILIZATION OF SPAIN.** *Mr. Baird.* A survey of the cultural and historical development of the Iberian Peninsula from early times to the present. 3 units. (Offered in alternate years; not offered in 1960-61.)

AVAILABLE AT SCRIPPS COLLEGE

I-155. SURVEY OF SPANISH LITERATURE. *Mrs. Lamb*. Year course. MWF, 11.

I-174. THE SPANISH AMERICAN NOVEL. *Mrs. Lamb*. A study of the novel in Spanish America. Extensive outside readings: individual reports in Spanish. First semester. Arranged.

Russian

1a-1b. ELEMENTARY RUSSIAN. Essentials of grammar, pronunciation, constant exercise in reading and writing. 3 units.

51a-51b. INTERMEDIATE RUSSIAN. More advanced study of Russian grammar. Daily reading, writing, translating and practice in Russian conversation. 3 units.

Sociology and Anthropology

Distribution requirement. In sociology and anthropology this requirement can be met in two ways: (a) by any two of the four courses, Sociology 51, Sociology 52, Anthropology 53, Anthropology 102; (b) by Sociology 51, or Anthropology 53, and any two upper division courses in the department.

Requirements for Concentration. Sociology 51 and/or Anthropology 53, plus 24 units of upper division work in the department are required. As many as nine of these units may be satisfied from the following courses outside of the department but within the field of concentration: Philosophy 122, Psychology 154, Government 162, Social Sciences 209, Economics and Government 240, and a course in statistics, either Economics 57 or Psychology 102. Although not required, a course in statistics is recommended.

The Comprehensive Examination. At the option of the student this examination may be based upon work in anthropology or in sociology or a combination of both fields. A more detailed statement about the comprehensive examination may be obtained from the department.

Foreign languages. All students are urged to obtain a working knowledge of at least one modern foreign language. For those intending to engage in school teaching or social work in the southwest, this language should be Spanish. For those intending to take graduate work toward the Ph.D. in sociology, French and German are recommended. For those intending to pursue graduate study in anthropology, a reading knowledge of French and German is desirable, plus a command of the language in the culture area of one's choice.

Honors Study. Students who have better than a B grade average and who desire to pursue independent study may register for honors, preferably during their junior year, but no later than the beginning of the senior year. This program, culminating in a thesis, is especially useful where a student is interested in a project that cuts across departmental lines.

SOCIOLOGY

51. THE STUDY OF SOCIETY. *Staff*. The basic characteristics and dynamics of society, culture, and personality as related to man's group behavior. Not open to freshmen. 3 units. First semester. *TTh*, 8, 10; and small discussion and conference sections at arranged hours.

52. SOCIAL PROBLEMS. *Mr. Herman*. An analysis of the major problems of present day society related to individual, family, community, and world disorganization. Open to second semester freshmen. 3 units. Second semester. *TThS*, 8.

106. SOCIAL WELFARE. *Mrs. Barrett*. Social welfare in the western world. A survey of basic principles and modern practice. Field visits and observation. 3 units. Second semester. *MWF*, 11.

107. CRIMINOLOGY AND PENOLOGY. *Mr. Herman*. Types of criminal behavior. Special consideration of juvenile delinquency. Factors contributing to crime and methods of dealing with criminals. Prerequisite: Sociology 51, or two of the following: Economics 51, Government 51, History 1. 3 units. Second semester. *MWF*, 2:15.

109. THE FAMILY. *Mr. Herman*. Analysis of changes in the American family and its relationship to the community. The family as a special social system. Prerequisite: junior or senior standing. 3 units. First semester. *TThS*, 10.

110. RACE RELATIONS. *Mr. Herman*. Problems of minority groups, and programs of action, with emphasis upon the American experience. Prerequisite: Sociology 51, or Anthropology 53 or 102, or consent of the instructor. 3 units. Second semester. *TThS*, 10.

111. PROBLEMS OF WORLD DEMOGRAPHY. An analysis of the basic characteristics of the population of the United States and of major areas of the world. The implications of population change for economic and political adjustments, international relations, and the development of world resources. Prerequisite: Sociology 51, or sufficient background in other social sciences to satisfy the instructor. 3 units. First semester. (Omitted in 1960-61.)

112. THE AMERICAN COMMUNITY. *Mr. Haer*. The development of the American Community as an ecological, cultural, and social system. Supervised observation and field study in the local area. Prerequisite: Sociology 51, or instructor's permission. 3 units. Second semester. *TTh*, 1:15-2:30.

134. INDUSTRIAL SOCIOLOGY. *Mr. Herman*. Human relations in business and industry. Formal and informal groups within work organizations. Determinants of effective leadership and communications, and their dynamic effects upon group morale, productivity, and social adjustment of workers. Social implications of bureaucracy and technological change. 3 units. First semester. *MWF*, 9.

153. COMPARATIVE SOCIAL MOVEMENTS. *Mr. Haer*. Emphasis on the ideology and the dynamics of such movements as Socialism, Nazism, Communism, and

Cooperation. Prerequisites: Sociology 51, or two of the following: Economics 51, Government 51, History 1. Open to Juniors and Seniors only. 3 units. First semester. *MWF, 10.*

154. THE DEVELOPMENT OF MODERN SOCIAL THEORY. *Mr. Haer.* The rise of modern sociology, with emphasis on the major contributions from Europe and America since 1900. Writing assignments and seminar discussion of important selected works. Prerequisite: Sociology 51, or Anthropology 53. Open to Juniors and Seniors only. 3 units. Second semester. *M, 3:15, and arranged.*

191a, 191b. INSTITUTIONAL ANALYSIS. *Mrs. Barrett.* Field work experience under supervision in such agencies as County Welfare, California Institute for Men, Pacific State Hospital, County Probation Department. Application of sociological concepts to the analysis and understanding of institutional agencies and their programs. Individual projects. Prerequisite: senior standing and concentration in the department. 3 units. Arranged.

192a, 192b. READINGS AND RESEARCH IN SOCIOLOGY. *Staff.* Open to students capable of independent study. Individual programs must be approved in advance. 3 units. Arranged.

ANTHROPOLOGY

53. HUMAN AND CULTURAL EVOLUTION. *Mr. Leslie.* An introductory study of fossil men and of primitive cultures, with an analysis of the evolutionary significance of the emergence of cultural traditions. Open to freshmen. 3 units. First semester. *TThS, 9.* (Some weeks the class will be divided into small sections for conference and discussion at arranged hours.)

102. WORLD ETHNOGRAPHY. *Mr. Leslie.* An introduction to the culture areas of Africa, the South Pacific, North and South America, with comprehensive descriptions of selected societies in those areas. No prerequisite. 3 units. First semester. *MWF, 9.* Second semester. *TThS, 9.*

108. THE COMPARISON OF CULTURES. *Mr. Leslie.* The comparative study of cultural systems by the use of different kinds of analytical models. Prerequisites: Sociology 51, or Anthropology 53 or 102, or written permission of the instructor. Second semester. *MWF, 9.*

130. EARLY AMERICAN CIVILIZATIONS. *Mr. Leslie.* The development of Mayan, Aztec and other civilizations with attention to the organization of their aesthetic, religious, and political traditions. No prerequisite. 3 units. Second semester. *MWF, 10.*

150. THE PHILOSOPHY AND RELIGION OF PRIMITIVE PEOPLES. *Mr. Leslie.* A study of the speculative thought of selected primitive societies as it is embodied in religious ritual, myth and folklore. Prerequisites: Anthropology 53, or Anthropology 102, or the written permission of the instructor. Open to juniors and seniors only. 3 units. First semester. *MWF, 11.*

193a, 193b. READINGS AND RESEARCH IN ANTHROPOLOGY. *Mr. Leslie*. Open to students capable of independent study. Individual programs must be approved in advance. 3 units. Arranged.

AVAILABLE AT CLAREMONT GRADUATE SCHOOL

209. RESEARCH METHODOLOGY IN THE SOCIAL SCIENCES. *Mr. Goodall and Staff*. 4 units. First semester.

240. ADMINISTRATIVE ORGANIZATION AND MANAGEMENT. *Mr. Goodall*. 4 units. First semester.

Zoology

ZOOLOGY CONCENTRATION. Requirements: Zoology 10a, b or equivalent plus 24 upper division units selected from the Zoology or Biology listings. With his adviser's permission a student may substitute 6 upper division units of one of the other natural sciences for 6 units of Zoology or Biology courses. The three course groupings below are suggested for the guidance of those students with different professional objectives. It is to be emphasized that all courses need not be taken in any of the three.

- I. Recommended courses for Medicine, Dentistry and Quantitative Biology: Zoology 10a, b, 115, 120, 122; Biology 112; Mathematics 1 or 50, 65; Chemistry 1, and 57 or 51, 110a, b, 111a, 158a, b; Physics 51 and 52; Modern Foreign Language 2 years or equivalent.
- II. Recommended courses for Medical Technology, Nursing, Occupational Therapy and Physical Therapy: Zoology 10a, b, 106, 107, 125, 126, 137; Biology 105, 112; Chemistry 1, 3, and 57; Physics 1, or 51 and 52.
- III. Recommended courses for Advanced Study in Biological Sciences and Teaching: Zoology 10a, b, 115, 120, 122, 125, 157, 130, 150; Biology 105, 112, 114; Botany 6 units; Mathematics 1 year; Physics 1 or 51 and 52; Chemistry 2, 3; Modern Foreign Language 2 years or equivalent.

BIOLOGY CONCENTRATION. See Botany Department listing.

BIOLOGY

1. GENERAL BIOLOGY. (See course description listed under Botany Department.)

2. GENERAL BIOLOGY. *Miss Stay, Mr. Andrus*. May precede or follow Biology 1 and with Biology 1 forms an integrated year course in General Biology. Illustrations drawn largely from the animal kingdom and human biology. Laboratory fee \$6.00. 3 units. Lectures, first semester, *MWF, 11*; second semester, *MWF, 10*; laboratory *M, 1:15-3:05 or 3:15-5:05*.

105. BACTERIOLOGY. *Mr. Amrein*. General study of bacteria and their physiology including extensive discussions of microbiological principles. Laboratory exercises on methods of culture and examination. Prerequisite: one year of biological work. Laboratory fee \$8.00. 4 units. Second semester. Lectures *MWF*, 9; laboratory *MW*, 2:15-4:05.

112. GENETICS. *Mr. Andrus*. This course considers the general principles and modern developments in the study of heredity. Prerequisite: one year of biological work. 3 units. First semester. *MWF*, 9.

114. GENETICS LABORATORY. *Mr. Andrus*. For students preparing for careers as professional biologists. Genetic principles and techniques will be investigated by project studies utilizing such organisms as *Drosophila*, *Hymenoptera*, and *Neurospora*. Enrollment by permission of instructor. Prerequisite: Biology 112, may be taken concurrently. Laboratory fee \$6.00. 1 unit. First semester. *W*, 1:15-4:05.

159. HISTORY OF BIOLOGY. *Mr. Amrein*. A historical consideration of the development and formulation of biological theories and concepts and their influences upon science and society. 3 units. Second semester. (Offered in alternate years; not offered in 1960-61.)

ZOOLOGY

For Marine Biology see listing at the end of this section.

10a, b. GENERAL ZOOLOGY. *Mr. Amrein*, *Mr. MacMillen*. An introduction to modern zoology with special reference to phylogeny, physiology, development, genetics, and evolution; laboratory exercises include a study of selected animals and phenomena which best illustrate important zoological principles. No prerequisites. Laboratory fee \$6.00 each semester. 3 units. Lectures *TTh*, 8; laboratory *T*, *W*, or *Th*, 1:15-4:05.

106. PARASITOLOGY. *Mr. Amrein*. A consideration of animal associations and parasitism in general with some examples selected from those parasites of economic and social importance. Prerequisite: one year of biological work. 2 units. Second semester. *TTh*, 9. (Offered in alternate years; offered in 1960-61.)

107. PARASITOLOGY LABORATORY. *Mr. Amrein*. Study of representative living and preserved animal parasites including laboratory methods in parasitology. Prerequisite or concurrent: Zoology 106. Laboratory fee \$6.00. 1 unit. Second semester. *Th*, 1:15-4:05. (Offered in alternate years; offered in 1960-61.)

115. COMPARATIVE ANATOMY. *Mr. MacMillen*. A course embodying an analysis of the phylogenetic changes undergone by the principal organ systems accounting for their present structure, and a comparative study of the structure of modern vertebrates. Prerequisite: Zoology 10. Laboratory fee \$10.00. 4 units. First semester. Lectures *TTh*, 9; laboratory *TTh*, 1:15-4:05.

120. VERTEBRATE EMBRYOLOGY. *Mr. Andrus*. A study of development from fertilization through organogenesis. Prerequisite: Zoology 115. Laboratory fee \$8.00. 4 units. Second semester. Lectures *MWF, 11*; laboratory *F, 1:15-4:05*.

122. CELLULAR PHYSIOLOGY. *Mr. Andrus*. A study of cellular dynamics including the interrelations between cells and their environments. Prerequisite: Chemistry 2 and 3 or equivalent and one year of biology. Laboratory fee \$8.00. 4 units. First semester. Lectures *TTh, 10* and *T, 1:15*; laboratory *T, 2:15-4:05*, and 1 hour arranged.

125. HISTOLOGICAL TECHNIQUE. *Miss Stay*. Theory and practice of preparation of animal cells and tissues for microscopical study. Laboratory fee \$6.00. 1 unit. First semester. *W, 1:15-4:05*.

126. VERTEBRATE HISTOLOGY. *Miss Stay*. Microscopic anatomy of representative vertebrate tissues and organs. Laboratory fee \$6.00. 3 units. Second semester. Lectures *TTh, 8*; laboratory *F, 1:15-4:05*.

137. ANATOMY AND PHYSIOLOGY. *Miss Stay*. A study of the fundamental principles of structure and function of the human mechanism and its nutrition with special consideration of the anatomy and physiology of exercise. Prerequisite: one year of college biology including Biology 2 or equivalent. Laboratory fee \$8.00. 4 units. Second semester. Lectures *TTh, 10*; laboratory *TTh, 1:15-4:05*.

157. ANIMAL ECOLOGY. *Mr. MacMillen*. A study of environment, life history, populations, communities, distribution, and evolution, with particular emphasis on the vertebrates. Laboratory fee \$10. 4 units. Second semester. Lectures *MWF, 9*; laboratory *F, 1:15-4:05*.

199. INTRODUCTION TO RESEARCH IN ZOOLOGY. *Staff*. Each semester. 1 to 3 units. May be repeated for credit. When laboratory work is involved, laboratory fee, \$2.00 per unit. Offered at Marine Laboratory as well as at Claremont. Zoology 125 recommended as prerequisite. Permission of instructor required. Arranged.

Zoology 11, 130, 150 and 199 are offered at the Kerckhoff Marine Laboratory at Corona del Mar. Time to be announced. Tuition for 6 units is \$105.00. Further information should be secured from Chairman of the Zoology Department, Seaver Laboratory. (Omitted in 1960-61.)

11. MARINE ZOOLOGY AND ECOLOGY. An elementary course in biological principles as observed in marine animals. Evolutionary development of the various groups, their specific identification, their ecological distribution, and their habits. Lecture, laboratory and field work. Designed especially to fulfill the Biological Science requirement. Offered at the Marine Laboratory during the summer. 6 units.

130. MARINE INVERTEBRATES. A study of invertebrates residing in the sea: their phylogenetic relationships, their morphology, and their physiology. Lab-

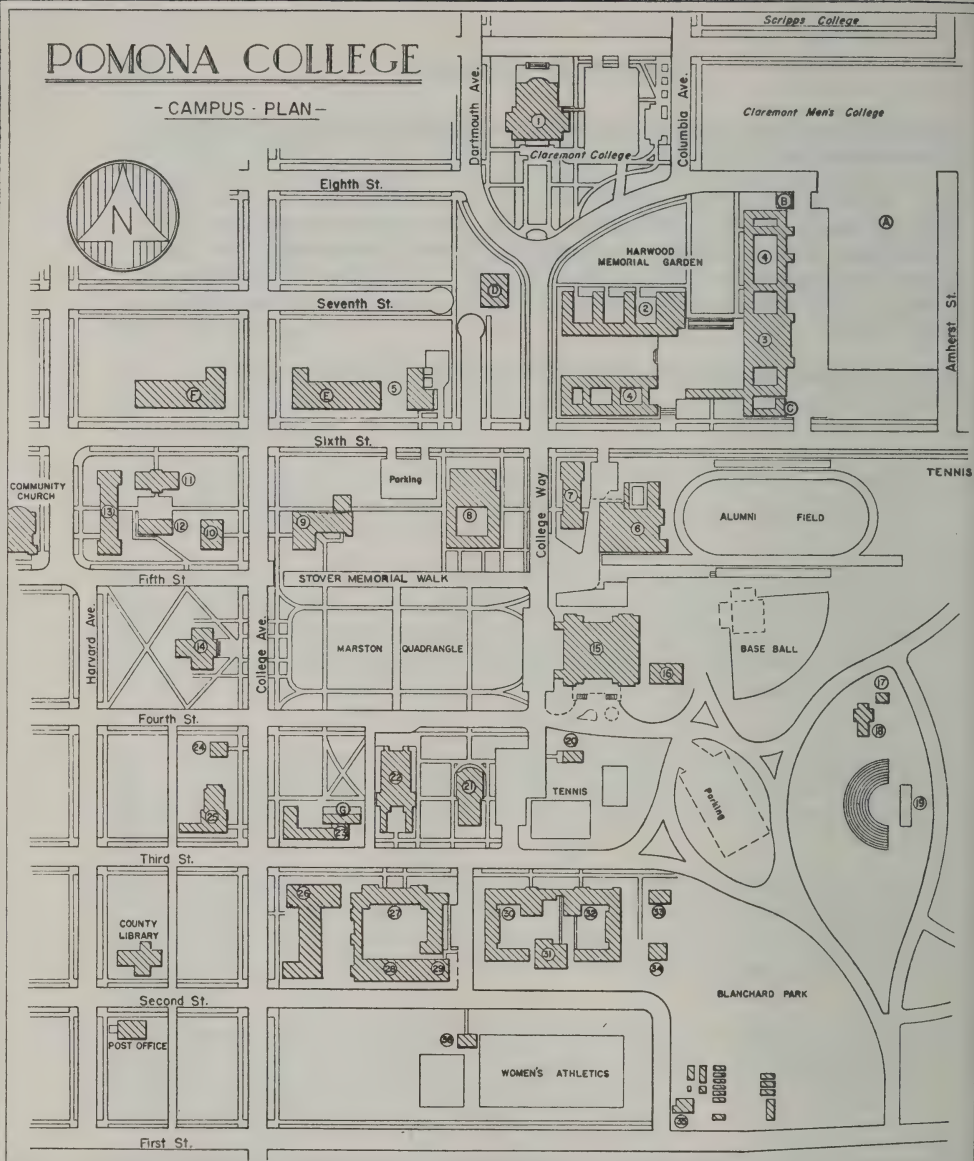
oratory devoted principally to the Pacific Coast types. Offered at the Marine Laboratory during the summer. 3 units.

150. MARINE ECOLOGY. A study of marine invertebrates as they exist in the field. Discussion of the distribution of each species observed and the factors which may account for these distributional patterns. Prerequisite: a thorough grounding in the morphology and physiology of marine invertebrates or Zoology 130 concurrently. Offered at the Marine Laboratory during the summer. 3 units.

199. INTRODUCTION TO RESEARCH IN ZOOLOGY. (See listing above.)

POMONA COLLEGE

- CAMPUS PLAN -



- A. Athearn Field.
- B. Telephone Building for the Associated Colleges.
- C. Edwin C. Norton Hall, residence for men.
- D. The Faculty House for the Associated Colleges.
- E. Robert A. Millikan Laboratory—Departments of Astronomy, Mathematics and Physics.
- F. Seaver Laboratory—Departments of Geology and Zoology.
- G. Rembrandt Hall, art studios.

POMONA COLLEGE CAMPUS PLAN

(See map on opposite page)

1. Honnold Library operated by Claremont College for the Associated Colleges.
2. Helen R. Walker Hall, residence for men.
3. Lucien H. Frary Hall, central dining hall for men.
4. Eli P. Clark Hall, residence for men.
5. Baxter Medical Building for the Associated Colleges.
6. Memorial Gymnasium and Swimming Pool.
7. Smiley Hall, residence for men.
8. Edmunds Union, including student offices, cooperative store, ballroom, and lounges.
9. Holmes Hall, classrooms and assembly hall.
10. Pearsons Hall, classrooms and offices.
11. Crookshank Hall, departments of botany and psychology.
12. Harwood Hall, department of psychology.
13. Mason Hall, chemistry laboratories.
14. Carnegie Building, classrooms and offices.
15. Mabel Shaw Bridges Auditorium, seating 2600, operated by Claremont College in behalf of the Associated Colleges.
16. Renwick Gymnasium.
17. Astronomy Laboratory.
18. Frank P. Brackett Observatory.
19. Open-Air Theatre.
20. Replica of original home of Pomona College.
21. Sumner Hall, administration building.
22. Mabel Shaw Bridges Hall of Music, assembly hall for recitals and chapel services; music studios and practice rooms.
23. The Gladys Montgomery Art Center.
24. President's House.
25. Claremont Inn, guest house for college and community, private and public dining rooms.
26. Anna May Wig Hall, residence for women.
27. Harwood Court, residence hall for women.
28. Aurelia Squier Harwood Memorial Dining Hall for women.
29. Mary McLean Olney Dining Hall.
30. Della Mulock Mudd Hall, residence for women.
31. Jessie E. Gibson Dining Hall for women.
32. Florence Carrier Blaisdell Hall, residence for women.
33. Casa Hispánica, residence for women.
34. Maison Française, residence for women.
35. Heating Plant and Maintenance Shops for the Associated Colleges.
36. Field House for women's athletics.

The Business Office for the Associated Colleges is located in the Pendleton Business Building at Dartmouth Avenue and Eighth Street.

The Infirmary for the Associated Colleges is located on Amherst Avenue north of Foothill Blvd.

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UNIVERSITY OF ILLINOIS-URBANA



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